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## A NEW DEPARTURE IN MEDICAL JURISPRUDENCE.\*

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The majority of offenses committed against society and individuals are actuated by the domination of evil passions that exist in the human breast. While they are manifested in so many diversified ways, and crimes result from so many complex conditions that every new offense may be said to be a separate problem in human weakness or depravity, the courts adhere with such decorous tenacity to rigid methods and uniform rules to determine the guilt, or innocence, or the degree of responsibility of the offender, that one looks in vain for novelties in judicial proceedings. Doubtless the conservative tendencies of the courts find a supporting response in every community that looks to a uniform, wise interpretation of laws and their impartial execution, as the prop and buttress of human society as it is constituted. Every departure from established methods, whenever it occurs, is likely to be scrutinized with some critical spirit, and before it can have a standing as a precedent must be shown by experience to be a readier way to reach better results.

It is probably true that members of our profession sometimes come to attach to expert testimony about the same value at which it is reckoned by the legal profession and the community, and we may even deplore the lack of accord between science, so-called, and the common-sense that is said to inspire the interpretation of law. Expert testimony must, however, continue to be regarded as indispensable, and whatever may tend to appreciate the value of the opinions of physicians should be a proceeding to be welcomed by both professions. The present lack of confidence in expert testimony results in part from the manner in which experts are expected to present their opinions, in order to conform to the

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\* Read at the annual meeting of the American Medico-Psychological Association, held at Philadelphia, Pa., May 15-18, 1894.

established usages of the courts, and partly from other reasons, so that the problem still remains to place the medical witness upon the stand that he may there give his opinion free from all bias or considerations likely to interfere with absolute independence in forming a conclusion.

It seems appropriate that any departure from the usual proceedings in trials, involving the question of the existence of insanity, might have a place in a meeting of this kind, rather than that an incident of unusual occurrence in a court of justice should pass wholly unnoticed.

Howard J. Schneider was indicted for a double homicide committed in the city of Washington, January 31, 1892. His trial commenced on the 3d day of March and closed on the 9th day of April, 1892, when a verdict of guilty was rendered. On the 4th day of May succeeding he was sentenced to suffer death. A new trial was refused by the trial judge. On an appeal, the Supreme Court of the District of Columbia, in general term, affirmed the judgment and sentence of the court below. The defense was that the homicides were committed in self-defense. No suggestion of insanity was made at the trial, nor subsequently thereto until about the time of the imposition of the sentence, when the defendant's conduct began to change, and the medical interest in the case dates from that time.

For sufficient reasons the appellate court granted a stay of proceedings; also, an application on behalf of Schneider for an inquiry into his alleged insanity to begin January 31, 1893, the hearing to be held before the full bench, without a jury. The court was composed of Chief Justice Bingham, and Justices Hagner and Cox. The following is a copy of the order of the court:

This court, to assist in ascertaining truly the mental condition of the said Schneider, desires to obtain the opinions of competent medical experts in mental diseases, in the most reliable manner; and to that end this day

ORDERS:

1. That Dr. Allan McL. Hamilton, Dr. John B. Chapin, and Dr. C. L. Dana, be and they are hereby constituted and appointed a commission to report to this court, at as early a day as may be convenient, for the consideration of this court, their professional opinion as to the mental soundness or unsoundness of the said Schneider; the said report to be given in writing, and verified by their oaths thereto appended, taken before the clerk of this court.

That the said experts shall make a careful examination of said Schneider personally, both together and by each one of said commission separately at

the said jail, in such manner as to them shall seem best; and they are also authorized and empowered to make proper examination of the employes and officials of said jail in their discretion, under oath, to be administered by a justice of the peace.

2. It is further ORDERED that the counsel of the prisoner may procure the services and attendance of skilled medical experts in mental diseases, not exceeding three in number, who are also authorized and empowered to make a personal examination of the said Schneider, either together or separately.

3. It is further ORDERED that on Wednesday, the 1st day of February, 1893, at 10 o'clock A. M., this court will enter upon an examination of the said allegation of insanity of the said Schneider in the court-room of the general term, at which time and place the members of the said commission shall attend, for the purpose of hearing the testimony there taken, and of further observing the said Schneider. And in behalf of said Schneider the said medical experts to be produced in his behalf (as provided in clause No. 2 of this order), together with a reasonable number of other witnesses to be produced on his behalf (in the discretion of the court) and a reasonable number of other witnesses to be produced on behalf of the United States (in the discretion of the court) shall be examined, on oath, in the presence of the court.

4. After the conclusion of the testimony so to be taken before the court, and of the personal interrogation of the prisoner by the court, if the justices shall see fit to make such interrogations—all in the presence of the said commission—the members thereof shall return their report and opinion for the consideration of the court, in form as is provided in clause No. 2 of this order.

By the Court,

E. F. BINGHAM, C. J.

The court verbally permitted and instructed the commission that they might interrogate and cross-examine any one of the sixty-three witnesses who subsequently appeared and gave testimony. The commissioners frequently availed themselves of this privilege, partly for the edification of the court, and partly to determine how far the experts who were called by the defense agreed upon what are recognized as results of experience derived from observation of the insane.

The hearing having terminated on the 10th of February, the court took a recess until the 20th of the same month, to enable the commission to prepare a report. In the report which they presented, the opinion and conclusion were expressed that the defendant was *not insane*.

After the report had been presented and read, counsel for the defense were granted permission to prepare a number of questions to be submitted to the commission, provided the questions tended to further enlighten the court in the matter at issue. Counsel for

the defense thereupon submitted eighty-four questions in writing, which Chief Justice Bingham announced would require time to pass upon intelligently. Upon reassembling after a recess, Chief Justice Bingham stated the court had carefully examined the questions, and explained that the commission had been selected to throw light on the question at issue, viz.: the present mental condition of the prisoner. The commission had been appointed as an advisory body, to better enable the court to reach a fair and just conclusion. But the commission had not been brought into court as witnesses open to cross-examination, and the court believed that it would be both an unheard-of and unthought-of procedure to permit counsel for the defense to cross-examine the commission. The court found that the eighty-four questions that had been submitted were each and every one of them in the nature of a critical cross-examination of the report. To allow them to be asked would indefinitely prolong the inquiry and open up the case anew. The court would, however, permit the commission to read the questions, and if, on reading them, they desired to add a supplemental report they might do so.

The commission submitted, with their report, a psychical chart prepared by Dr. Charles L. Dana of New York, a member of the commission.

The decision of the court, composed of Chief Justice Bingham and Justices Hagner and Cox, was rendered by Judge Hagner in writing. In the opinion of the court the prisoner was not insane, and the court declined to interfere. It may be of further interest to state that application was subsequently made to the Supreme Court of the United States for a writ of error, which was refused. Application was also made as a last resort to the President, who declined, after a thorough examination of the proceedings, to interfere with the execution of the law.

It has not been the purpose to do more than present an outline of the proceedings of the court in disposing of this case. To undertake to do more would be a re-trial of the case. The chief interest in the case to us lies in the action taken by the court in the creation of a commission, and whether such a proceeding may become such a precedent as to be followed in the interests of justice for the enlightenment of a court, and one more likely to secure greater independence of judgment by the medical expert in forming his opinion than by following the usual course. The refusal of the Supreme Court of the United States, and the President, to take any excep-



tion to the action of the court might imply that in their judgment no error had been committed. The Hon. Jere. Wilson, of counsel for the defense, when asked if there were precedents that warranted the proceeding which had been taken, replied that he knew of none, and "that it was evolved from the inner conscience of the court." There is some analogy in the action of a judge who, sitting in admiralty cases, may ask a captain or navigating officer to sit with him as an *assessor* in a complicated case of marine navigation.

A question has arisen whether the order of the court directing that experts be called in a hearing or inquiry similar to this can be of any aid. I am in doubt, but can not decide. It must be borne in mind that the case had passed beyond the trial stage, and the inquiry was conducted by judges observing the rules of evidence, which medical men are not usually considered competent to decide. If an opinion of a commission is to be secured, which is to be free from bias, full and explicit, then its members should certainly be exempt from cross-examination as to the manner in which a conclusion may have been reached, and, in declining to permit the counsel in this case to cross-examine the commission, the court did right. If a cross-examination is permitted the opinion will neither be just, full, or explicit, but carefully guarded and defensive. A commission, it is true, may err in its conclusions, and the experts may also disagree, presenting the not infrequent spectacle of medical men reaching opposite conclusions from precisely the same statement of facts.

It may be alleged that in a questionable case doubts and differences are inevitable if two groups of experts sit in a case; also that the rights of the defendant must under all conditions be guarded. If the attorney for the people and the defendant can agree upon an equal number of qualified experts for submission to the court, from which say three may be selected, it would seem the proceeding would be perfectly fair, much simplified, and a satisfactory conclusion would be reached in any case where a medical commission might seem desirable, and in every case where experts are called, without prejudice to the rights of the defendant. The only pretext for introducing experts for the defendant, in a case such as has been presented, is that their views and testimony may enlighten the court and aid a commission, and a desire of the court to give the defendant every opportunity to show his mental condition.

The Hon. C. C. Cole, who was the district attorney of the District of Columbia, and engaged in prosecuting Howard J

Schneider on behalf of the people, and who is now a judge of a court in the District of Columbia, in a letter written to the writer, states: "I have no hesitation in saying that the investigations and report of the commission of medical experts were of the utmost importance and assistance to the court in arriving at a correct conclusion in that case. . . . ."

"There can be no doubt of the great value to the court of such a commission, where the court itself is charged with the duty of determining the question of present sanity as a fact, as in the Schneider case, where it was claimed that after conviction insanity developed and existed at the time fixed for execution of the prisoner, and that the execution should be delayed until recovery. It would apply equally to a case where, at the arraignment of the prisoner, it should be claimed that he was then insane, and not capable of pleading or proceeding with the trial."

"Such a proceeding would have no proper application when the defense is insanity at the time of the commission of the alleged crime. Insanity as a defense to the alleged criminal act is a question of fact solely for the jury under the guidance of the court to determine."

"From my observation and experience in the Schneider case and other cases, I have no doubt but that the proceeding adopted in that case is the best possible to ascertain the mental condition of the party, and I am certain that the judges who heard and determined the case agree with me in that opinion, and they have each had great judicial experience in such matters."

The proceeding which has been presented, so far as I have been able to learn, is without precedent, but whether this statement shall prove to be correct or not, I have presumed to name it "a new departure in medical jurisprudence" practice, and trust that it may be one step in advance toward the adoption of some practical plan that will enable the expert to appear in court in such a manner that his independent judgment may be secured, and that it may be presented free from bias, or the suspicion of its existence, for all of which service he should be paid, by an *order of the court*, a suitable compensation.

If it be alleged that the court erred in its conclusions; that danger may arise lest an insane person be condemned and punished; or that the court sought to be informed in an unusual manner, it may also be asserted the whole proceeding will tend to make human life more sacred, and exercise a wholesome deterrent influence against violence and criminal acts.

## A NEW DEPARTURE IN MEDICAL JURISPRUDENCE.\*

BY W. W. GODDING, M. D.

Superintendent Government Hospital for Insane, Washington, D. C.

The points in this judicial procedure have been so well presented by Doctor Chapin that it seems hardly necessary to add anything further.

I will say, however, that I am thankful for the departure. I feel that the United States' courts in the District of Columbia have taken a step in advance, and have established a precedent for humanity in every case where, after conviction and sentence, pending the infliction of the penalty, the question of the present insanity of the convict has been legally raised. It should hereafter be impossible to legally hang an insane man in the District of Columbia.

In this case the court properly held that a prima-facie case of insanity must be made out before any action could be taken from the bench, and that the affidavit of the convict's counsel and of the physician of the jail to his insanity was not sufficient ground for an official inquiry, since the physician of the jail could not be presumed to be an expert in insanity. I was accordingly asked to examine the man, which I did, and added my affidavit that he appeared to have the belief that attempts were being constantly made to poison him, which belief, if it was not feigned, of which I saw no evidence, was an insane delusion, and he was insane.

The court accordingly issued an order, appointing a commission of three well known experts in insanity to examine the condemned man in regard to his mental condition, also appointing a time for a hearing of witnesses on the subject of his sanity, witnesses who might be called both by the man's counsel and by the government, together with three medical experts in insanity, selected by the convict's counsel and called in his behalf. All this testimony was to be taken before the judges in the presence of the commission of experts, who should have power to ask questions, and who, after the examination was over, should make a written report to the court of their finding in the case. Later the court would render its decision.

A wide latitude was allowed in the testimony, the question of

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insanity not having been raised at the time of the trial when he was found guilty of murder. The testimony at this hearing went over the whole life of the convict, from the time when a demented father begot him, down to and including his nine months' residence in the jail, awaiting the coming of his execution. There was also the testimony of three medical experts who had, after examination of the man, pronounced him insane.

The hearing was patient and exhaustive. The commission of experts unanimously reached the conclusion that he was sane. The court declined to interfere, and the man was properly hung for his crimes.

I think this judicial proceeding was most salutary. The court was relieved from the possible imputation of having permitted the execution of one who, by reason of the loss of his mind, had been rendered incapable of comprehending his punishment; and the community was relieved by finding that the wretch, against whom the popular feeling was most intense, had not, by feigning insanity, been able to escape the gallows he so richly deserved. The criminal seemed also to have entered into the spirit of the occasion, and appeared as stolid and indifferent at the hanging as if he did not know what was taking place.

A few words of comment on the procedure, from the standpoint of the expert, are proper here. It seems unfortunate that the court allowed three experts in insanity to be called in behalf of the convict. It goes without saying that if their testimony was that the man was sane, they would not have been placed on the stand by his counsel. The man, having been convicted and having exhausted every chance for a new trial, had no right in the premises. The rights were simply those of a common humanity, which permits no punishment where there is no mind. Evidence of his former life, his heredity, and his conduct was properly introduced, as it might help both judges and commission of experts in arriving at a correct conclusion in regard to the mental state of the man. But what earthly use had they for the opinion of these quasi- or as it proved in this case) pseudo-experts? Had they chanced to agree with the commissioners, this would have added nothing to the enlightenment of the judges, while disagreeing, their weight with that tribunal was lighter than the vanity that might have deceived them into thinking that they were of some importance there. A commission of three impartial experts, who were the "*amici curiæ*," afforded the man all the protection that he needed, and the

introduction of the other three only served to detract from the solemnity of the commission's responsibility, and to still farther weaken the faith of the public in medical expert testimony. I trust that the order of the court in the next case will omit the pseudo-expert.

But while regretting this one "fly in the ointment," I can not think the procedure has "lost its savor" thereby. Hereafter, I say again, no condemned man who is really insane needs to hang in the District of Columbia. When three able and impartial experts have passed upon his sanity, we have a right to claim that the wretched convict has had all the protection which is possible, or that a reasonable philanthropy has any right to demand. Even if he should appear a little strange at the scaffold, it would be far more reasonable to attribute his conduct to his eccentricities than to suppose that we, as experts, had made any mistake.

## A NEW DEPARTURE IN MEDICAL JURISPRUDENCE.\*

BY E. N. BRUSH, M. D.

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When physicians attempt to talk or practice law, and explain its many and often inexplicable mysteries, they may, as a rule, be expected to leave the domain, what our legal friends term the "common law," and to stray into the fields of any uncommon jurisprudence.

Aside from its own particular points of interest, the Schneider case, which I have been invited to discuss, possesses, in the legal procedure which terminated its relations with the courts, features of such interest, and, so far as I am able to gather, so wholly unique that I assume the risks involved in trespassing upon the domain of another profession in speaking of those features from my point of view.

Howard J. Schneider of Washington, D. C., was tried for and convicted of murder and on May 4, 1892, was brought to the bar of the criminal court of the District of Columbia for sentence. For an account of what steps were then and subsequently taken, leading up to the procedure I am about to discuss, I quote from a letter from one of his counsel, Mr. A. A. Hoehling, Jr., of the bar of the District of Columbia:

"Immediately prior to the passing of sentence, counsel for the prisoner (by reason of certain information which has been brought to our attention) made a suggestion to the court that there was doubt as to the sanity of the prisoner, and requested the court to postpone the sentence until some inquiry might be made in regard thereto.

"This the court refused to do. Thereupon the court proceeded to and did sentence the prisoner to be hung on Friday, January 20, 1893. Then occurred the scene in court which was testified to at the recent hearing, unnecessary for me to here re-state.

"As an appeal was taken, on the merits, to our court in general term, and, moreover, as we considered that, if the prisoner were really insane, his condition would become more exaggerated and

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pronounced in time, we decided to take no further steps in the insanity investigation until after the hearing of the case on appeal.

"Neither of his attorneys saw the prisoner from the time of his sentence until after the decision of his case on appeal, on the 7th day of January, 1893. In the meantime, however, we were repeatedly requested by Doctor McWilliams, the jail physician, to take some steps looking to an inquiry into the mental condition of the prisoner; further, that he considered him insane, etc. This belief was shared in by the warden of the jail, and so reported to us.

"After the decision of the case on appeal, we immediately took active measures looking to an inquiry as to the mental condition of the prisoner.

"Our first move was to file with the court a communication, addressed to the court and signed by counsel, suggesting to the court that we had been advised by persons having charge of the defendant, and competent to know, that the prisoner was insane, and we requested that the time of execution be postponed for such reasonable time as would enable an investigation to be made; and, further, that the court order such an investigation.

"This application was accompanied by an affidavit of Doctor McWilliams, the jail physician, who stated some of the delusions, as well as the manner and conduct of the prisoner, and further expressing the opinion that the prisoner was '*undoubtedly insane.*' We also filed at the same time a letter from the warden of the jail, addressed to us, in which he described some of the delusions, the conduct, etc., of the prisoner, and expressing the opinion that the condition of the prisoner was one of '*mental apathy.*' This application was filed by us, I think, on Monday, January 15, 1893, just five days prior to the date of execution, and was by the court *refused*, on the ground that we had not made a *sufficient showing*.

"We thereupon, on the same day, saw Doctor Godding, and had him go to the jail and make a personal examination of the prisoner; also Doctor Walsh (not an expert). This examination was made and we obtained the affidavit of Doctor Godding, who stated sufficient doubt existed as to the sanity to warrant an investigation being made. Doctor Walsh, who had known Schneider for many years, stated that he considered Schneider insane. These two additional affidavits we filed, and thereupon the court granted our

application and postponed the time of execution, and subsequently passed an order providing for the investigation.

"The order, passed by the court, was as follows, except that I have substituted the name of Dr. C. L. Dana for that of Dr. A. E. McDonald, which appeared in the original order, Doctor McDonald being unable to serve; Doctor Dana was called in his place."\*

It is difficult either from the order or from the experience gained by appearing for examination before the court and medical commission to comprehend exactly what method of procedure was in the mind of the honorable court from which the order was issued.

As the inquiry developed, it was observed that the law court appeared to regard the three commissioners as a court medical, and yet it appeared that the district attorney regarded the medical gentlemen as in a sense his assistants.

Another anomalous feature of the order is that portion which directs that the commission shall collectively and separately examine the prisoner, take the evidence of the guards and others, and *then* appear in the court to hear the other witnesses and the experts called by the counsel for the prisoner, after which they are to file their opinion under oath. The natural supposition is that a commission of this sort is composed of experts in the particular branch of inquiry toward which the commission is directed — and this was the case in this instance. This being true, why the necessity of experts called by the counsel for the prisoner? If the two sets of medical men agreed, such a concurrence of opinion was very desirable.

If, on the contrary, they disagreed, the commission, refusing to be moved by the opinions of the experts called by the prisoner, the judges would be in the position of receiving three verbal opinions from the witness stand upon one side, and the written opinion of the three medical commissioners upon the other side — and we all know the difficulties and dangers incident to a decision upon points whereon doctors disagree.

The whole question of the best method to be followed in obtaining in capital and other cases the opinions of those who, from experience, unusual means of observation, or other reasons, are supposed to be best able to aid in the solution of the problem, is a difficult one for solution, and presents so many sides that I may be excused, possibly thanked, for not attempting to touch upon more than one or two of the points.

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\* This order appears in the article by Doctor Chapin, and is not repeated here.

Experts, so-called, are commonly summoned by one side or the other of the case at issue. If the plaintiff learns that the defendant is to call experts, experts are summoned to contradict them, and the non-edifying spectacle is presented of two sets of learned men, holding diametrically opposite views upon the same question. Why is this?—Is science so uncertain that her teachings can not be read by those versed in her mysteries? Is experience truly, as Hippocrates taught us, fallacious, and judgment difficult? I think not, at least not always. What, then, are the difficulties? Do they not partly lie in that peculiar mental constitution which all of us possess, but the weakness of which some are able to keep under, which makes us unconsciously see a case in the light in which a specious special pleader may put it to us, a psychological hemianopsia—a mental blindness yet to be examined, labeled, and classified by our neurological friends, who are so expert and so ready at that kind of work.

Unconsciously, always unconsciously, let us hope, experts bend theories, and cut down or pile up facts to suit the side upon which they are called, until the term expert has become a label, which, some of us, hesitate to wear. And then the lawyers. Few, I presume, of the members of this association, have lacked the experience of a cross-examination by these ready-witted and nimble-tongued gentlemen, who put alternative questions, and lead you to think they expect an affirmative or negative answer, who delve in the literature of a forgotten past, and calmly ask you questions upon matters as foreign to the case in hand as the Behring Sea controversy to the claims of the Tichborne claimant; who look at you with mild eyed surprise or pitying sympathy if you, on any subject connected with medicine or the allied sciences, presume to answer "I don't know"; who ask your opinion, and then, dramatically thunder at you, "I don't want your opinion, sir, I want facts." If none of you have had this experience, I advise that you gain it in some way; it is a liberal education in the art of how not to do things. And then, after you have left the stand, and think over the answers you have made, how the attorneys on the one side or the other have obtained from you, by cunning devices and well-concealed pit-falls, admissions and theories, which make you wonder why you ever attempted to express an opinion on the most simple truth in creation, and which permit the able experts on the other side to say that Professor——wholly repudiates any such theory as you have advanced, and Herr Professor Von Something-else long ago

exploded the opinions which you enunciated, and that, in fact, there is not a single nail upon which to hang your views of the case, you will hide your diminished head, and wish for some Maurier to illustrate for your delectation, "Things one would better have left unsaid."

It was once my pleasant experience to occupy the witness-chair for two whole days; the direct examination lasted twenty minutes; the remainder of the time was taken up by most interesting cross-examination made by a very brilliant attorney who had read medicine diligently for six weeks to prepare for this case. At the close of the second day, the cross-examiner said to me over the dinner-table at the hotel, "Doctor, I don't know much more about the case than when we commenced." I replied that I was sorry if he were disappointed, but that I was in a worse condition, I did not know as much.

On another occasion one hundred and ninety questions in the anatomy, physiology, and pathology of the brain and general nervous system were brought into court for my particular pleasure. After assuring the learned counsel in answer to a few of them that I could not gratify his search for knowledge—the judge kindly came to my relief by suggesting that I had probably been examined at college—and intimating that some questions upon the case at issue might elucidate some opinions worth hearing. Then there is the jury.—Well, jurors are supposed to be the peers of the individual on trial, and if, of the case, dementia is alleged, they commonly are.

Then the judge with wise saws and learned precedent, sums up the whole matter, and from out the confusion of ideas and complexity of theories—a verdict is rendered.

Sometimes upon one side or upon both the attorney has at his side a member of the medical profession, to suggest questions and add variety to the torture of his medical brother on the rack, and out of all this, as is witnessed in many of our courts of law, is evolved something at which gods and men may wonder.

It was doubtless to escape just these things that the honorable judges in the Schneider case took the course which has been pointed out.

I think I voice the sentiments of all my associates called as experts by the counsel, by the prisoner, that never has it been our experience to have a more fair, considerate, and, touching the case at hand, more intelligent examination than in this case.

The prisoner's counsel asked each his opinion, with the usual

preliminary questions, and the questions naturally drawn out by the opinions, and then turned us over to the district-attorney for examination. This gentleman, instead of permitting himself to be coached by medical assistants — relegated the cross-examination, with the consent and concurrence of the court, to the commissioners. This examination was undertaken in a dignified manner, and attracted the closest attention of the court. It was undertaken not with the intention of producing contradictions, or of surprising the witnesses into making faulty or questionable admissions, but to get at the facts of the case and the processes by which the witnesses reached their conclusions. In these respects the inquiry was satisfactory and admirable.

The opinion of the commission did much, possibly did all, to form the opinion of the court. It was clearly expressed, and with no hesitating or doubtful phraseology. It was an opinion by a commission, a commission which sat with the court, and was to all intents and purposes part of the court. It was not the verdict of a jury, but an opinion.

I am not an attorney, neither have I submitted the point which I am about to make to one, but it seems to me, that being an opinion, it was subject to examination and review, and that the attorneys for the prisoner were entitled to appeal from it.

Herein, it seems to me, lies the weak point of this procedure. The opinion of a similar commission may not in a future case be found to stand without examination and review, and therefore it may not always simplify the present cumbersome and unsatisfactory methods.

The experts called by the counsel for the prisoner, while clearly within his rights, were I think, unnecessary, and in the presence of the able commission added nothing to the elucidation of the problem.

If this case had been one which upon the point at issue could have been submitted to a jury, and the judges could have summoned for the "information of the court" three or more men of judgment and of experience with the insane, I believe the ends of justice would have been as well met.

In a malpractice suit which I once reported for a medical periodical, the question turning upon a point in surgical diagnosis, the presiding judge issued upon his own motion four subpoenas, three to eminent surgeons, one to a physician of large general practice who when they came into court were directed to examine the

plaintiff, and report upon the witness-stand the diagnosis. These witnesses were subject to cross-examination, but their testimony satisfied judge and jury and terminated the trial.

Is there not here a suggestion in criminal and other trials out of which our courts and law-makers could evolve a plan which shall supplant the unseemly contests between experts, and the unfortunate exhibitions which are too often made by those willing to lend their aid to bolster up doubtful pleas.



## NEW ENGLAND ALIENISTS OF THE LAST HALF-CENTURY.\*

BY T. W. FISHER, M. D.,

Superintendent Boston Lunatic Hospital, Boston, Mass.

On this first semi-centennial of our Association the duty has been assigned me of making appropriate reference to our deceased members from New England. It has been thought fit to call the society together in the place of its birth to review its history and to award to each fellow his place in the *Ruhmeshalle* of our specialty. To state "concisely and appreciatively" the life-work of twenty-seven men so accomplished in twenty minutes would entitle the writer himself to a seat in Walhalla!

The faithful worker in the field of modern psychiatry must be at once a scientist, a humanitarian, and a man of affairs. Until our recent very satisfactory change of name and organization, membership in this society implied the management of some hospital for the treatment of insanity. Like the United States, we began with thirteen members, of which seven were from New England. With our numbers augmented by the increase of hospitals, and the admission of assistant physicians and other alienists, New England still holds numerically a high position. Of two hundred and eighty-one members in 1893, she had forty-eight. The society, as well as the States, has prospered; yet if the original thirteen sat down with unbroken ranks to dinner in Jones' Hotel, the death of Vice-President White within the year was "confirmation strong as death" of the old superstition.

And what a long death-roll of noted men has followed. Of the twenty-seven from New England, I have known eighteen, most of them intimately. In reviewing this list of pioneers in American psychiatry, the name of Ray, to my mind, like that of Abou Ben Adhem, leads all the rest. Not that "he loved his fellow-men" more than all the others, but because of a certain intellectual pre-eminence. To have called him, as I did when we last met, the Nestor of his department of medicine, was a feeble compliment. We all too soon become, by reason of age, in some respects distinguished above our *confreres*. In him were combined fullness of

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years and ripeness of intellect. And his intellect was naturally of a high order.

Doctor Curwen says of him, "No one who ever enjoyed these opportunities of hearing him pour forth the richness of a mind well stored with the treasures of literature in general, and of insanity in particular, will ever forget the instruction he then received. His sound judgment and matured views always gave him a commanding influence."

He was educated at Bowdoin and Harvard. In 1841 he was appointed superintendent of the Augusta Hospital, and of the Butler Hospital in 1845. He spent a part of this year in Europe, and devoted the next two to the building of the hospital. He remained in charge twenty-two years. He published a work on the jurisprudence of insanity of seven hundred pages, which at once gave him a wide celebrity. It was the first and, for many years, the only important contribution to the scientific study of insanity in this country. It is still a standard authority at home and in Europe, and a monument of wisdom, learning, sound judgment, and large experience. It is destined to hold a high place in the literature of insanity in spite of the great advances of the last ten years. His books on "Mental Hygiene" and "Mental Pathology" are of equal importance.

Doctor Woodward, our first president, must have been a remarkable man in many ways. Doctor Curwen gives an interesting account of the formation of our society as the result of a conference between him and Doctor Stribling of West Virginia. He, with Doctor Todd, was active in raising funds for and establishing the Hartford Retreat in 1823. He was first superintendent of the Worcester Hospital, opened in 1832.

His printed works are confined to reports, but these were widely circulated, the usual edition being three thousand, and making for fourteen years a volume of six hundred pages. I have before me a presentation copy of the first four reports bound. It contains Doctor Woodward's autograph, and was presented to Edward Everett, then governor. Horace Mann was chairman of the building committee. There is a lithograph of the hospital, with a stage-coach driving up, and the present fine grove of elms dwindled to currant bushes.

The floor plan shows a hospital for two hundred and forty patients, all in single rooms. The corners show the present cages, or verandas, as they were called. Each ward opened on a square

room with two sides of unglazed iron sash, making a fine airing-room for all weathers. Aside from their suggestion of a menagerie when in use, these verandas would be desirable adjuncts to any hospital.

Doctor Woodward showed in his reports ideas quite up to the present concerning insanity and its treatment. In 1833 he recommended small detached homes for convalescents. "They should form a large family and not one should be idle. . . . They would require but little restraint, and might ride or range the grounds at pleasure." He also advocates separate buildings for quiet and chronic cases. Also detached lodges for the noisy and violent. This was essentially the cottage system, though Doctor Spurzheim had already advocated it.

In his third report he considers labor as a remedial agent, and advises the erection of workshops and a chapel. In his fourth, besides fifteen tables of statistics, he gives a detailed account of the results of treatment in ten cases. He describes the great improvement in numerous cases from prisons and almshouses, where they had been subjected to neglect and hardship. In an appendix he discusses the moral insanity of Pritchard and Pinel, with several cases. He also wrote a series of articles on asylums for inebriates.

Doctor Bell was also one of the original seven. He was a son of Governor Bell of New Hampshire, and his social and intellectual qualities were of a high order. He was educated at Bowdoin and Dartmouth, and continued his medical studies in Europe. He was active in founding the Concord Hospital, and was superintendent of the McLean Asylum for twenty years. In 1845 he went to Europe for the purpose of studying hospitals there. The results of his observations were embodied in the plans for the Butler Hospital.

He was for two years president of the Massachusetts Medical Society. At the breaking out of the rebellion he was appointed surgeon of the Eleventh Massachusetts Volunteers. He was soon promoted to be brigade-surgeon of General Hooker's division. He died suddenly in camp of endocarditis in 1862. His writings on subjects relating to general medicine, as well as to insanity, were numerous and important. He is best known for his description of that form of acute mania called Bell's disease.

In 1839 the Boston Lunatic Hospital was opened to relieve the Worcester Hospital of its city cases. Doctor Butler was its first superintendent. He was, like Doctor Woodward, a man of modern ideas with reference to insanity and its treatment. He

regarded employment, amusement, and moral management as essentials, and discouraged the use of restraint. He found a number of the worst cases at the neighboring almshouse permanently confined in wooden cages. As a specially humane feature of their treatment, these cages were put on wheels, and in fine weather were drawn out of doors. Doctor Butler released all these poor creatures, and he often told me of one woman, especially dangerous, and maniacal, whom he won by presenting her a dandelion. She was soon restored to comparative sanity and good conduct.

In 1887 I had the pleasure of introducing him to one of his original patients, who for forty-eight years continuously had resided in the same hospital in comfort and contentment. Doctor Butler was appointed superintendent of the Hartford Retreat in 1843, and served thirty years. He converted the dreary, cold, dark and forbidding walls, the narrow passage-ways, and the comfortless rooms and dormitories of 1843, into an institution well nigh perfect in its appointments. He had a hobby, which we might all ride to advantage, in the individualized treatment of the insane.

Doctor Stedman was the second superintendent and served nine years. He was educated at Yale and Harvard, and for ten years was surgeon to the Marine Hospital. After 1851 he was surgeon at the City Hospital. He first introduced the use of associated dormitories for the insane. The addition to the hospital in 1846 for one hundred and twenty beds was all in dormitories. During his term of service severe epidemics of cholera, ship-fever, and malignant dysentery occurred, but he was well fitted by experience and education to cope with them. Doctor Curwen says: "Few men had greater opportunities for observing disease than he, and he improved them with great earnestness. He educated many students before the days of medical schools in Boston."

Doctor Earle was educated at Leicester and the Friends' School, Providence, of which he became principal. He took his medical degree in Philadelphia, and spent a year in Paris visiting hospitals for the insane. He was four years physician to the Friends' Asylum, Frankford. In 1844 he was appointed superintendent of the Bloomingdale Asylum. In 1849 he visited thirty-four hospitals for the insane in Europe. In 1864 he succeeded Doctor Prince, superintendent of the Northampton Hospital, remaining twenty-one years. The financial result of his administration was the purchase of land worth \$25,000, and an increase of the plant to the amount of \$173,000; also increase of cash assets to the value of \$43,000.

Doctor Earle's three visits to Europe were followed by papers giving the results of his extensive observation of foreign hospitals. He also became acquainted with many famous philanthropists in England, and he was a member of several foreign medical societies. He lectured on insanity in New York in 1853, and in Pittsfield in 1863. His most important recent article was on the "Curability of Insanity." It was a useful study of an important subject, but in my opinion was not such an "epoch-making work" as one of his reviewers claimed it to be. The opinion that from 75 to 90 per cent of cases of insanity could be cured was never entertained by any reputable authority. Some sanguine superintendents may have claimed for very recent cases a high rate of recovery. Doctor Woodward says "that as many such cases will recover as from any other acute disease of equal severity." He gives in his report for 1834, 55 per cent of all cases discharged as recovered; 20 per cent of old cases, and 82 per cent of new. This method of calculating recoveries on discharges instead of on admissions, as at present, may have misled some writers. Reckoned in this way, Doctor Woodward only discharged 24 per cent recovered in 1834. According to Wilkins, in 1870 the percentage of recoveries in the United States was thirty-three. This has been gradually reduced by reason of the custom of sending large numbers of mild chronic cases to the hospital, until in this State it is about twenty-five. Recoveries on readmissions alone would not reduce the rate in any year more than 1 per cent.

Doctor Brigham, in 1844, was superintendent of the Utica Hospital, but previously for two years had charge of the Hartford Retreat. He was distinguished as a physician, as well as an alienist, and published many works on general medicine. He was professor of anatomy and surgery in New York, and was the first editor of the *JOURNAL OF INSANITY*.

Doctor Cutter was almost an original member, attending the second meeting. For many years he was superintendent of a private institution at Pepperell. He died in 1859, having labored forty years for the insane.

Doctor Chandler, successor to Doctor Woodward, also joined the association in 1845. He resigned his position in 1855, and resumed the practice of medicine in Worcester.

Doctors Bates, McFarland, and Rockwell also joined in 1845. Doctor Bates left the Augusta Hospital in 1851. Doctor McFarland removed from Concord to Jacksonville, Ill., in 1852, where he was



fifteen years superintendent. Doctor Rockwell was the first superintendent at Brattleboro, a position he retained thirty-five years. By careful management he built up a fine institution from a small bequest of ten thousand dollars in 1835. Until recently all the State patients were boarded in this private hospital. From a central building, and one wing with nineteen patients, the Vermont Asylum in fifty years had grown to a capacity for four hundred and fifty patients, and a plant worth half a million dollars. Doctor Rockwell was not only a good manager, but a skillful physician. He had been an assistant with Doctor Woodward at Hartford, and shared his advanced views concerning insanity.

Doctor Jarvis, as early as 1836, took insane patients into his family, and for many years had a private hospital in Dorchester. He was more than an alienist, as he had a strong bent for statistical research. He achieved a European reputation in this difficult field. He was a member of many foreign societies, and had a library unsurpassed in this country in this specialty.

I well remember the kind advice, the numerous letters and commissions the doctor gave me on my first visit to Europe; also, the huge box of pamphlets I sent him. He had a most insatiable appetite for the driest sort of mental pabulum. His love of figures was but one expression of his ardent love for the exact truth. He was a member of a commission in 1854 to ascertain the number of idiots and insane in the State, and the hospital accommodation they would require. He was for years a trustee of the Worcester Hospital and the School for Feeble-Minded Youth.

Doctor Harlow was superintendent of the Augusta Hospital from 1850 to 1883, a period of thirty-three years. He rebuilt the hospital after the fire. He was a man of sound judgment, a model superintendent, a good physician, and a most kind and sympathetic friend of all his patients. He was often called as expert in his own State, and was president of the Maine Medical Society.

Doctors Tyler and Walker are closely associated in my mind. They were classmates at Dartmouth, and were warm friends for a lifetime. They, for many years, had charge of hospitals near Boston, and were connected by many social and professional ties. Doctor Tyler was five years at Concord, and fourteen at the McLean Asylum. A memorial by Doctor Bancroft is an eloquent tribute from another lifelong friend to Doctor Tyler's remarkable qualities. My acquaintance with him began, as he often used to remind me, on the day of my birth. Although I knew him quite well, I feel with



Doctor Bancroft, "that it is not an easy thing to form and express in words a true and just estimate of a human life," especially such a life as Doctor Tyler's. He was intellectual, cultivated, learned in his profession, a good administrator, a firm friend, kind-hearted, social, and witty, it is true; but saying this tells little to a stranger of the real individual. The personality escapes continually in these descriptions.

He had a vein of humor which bubbled over even into his little business notes, and which made his society attractive to the younger men of his staff. His lectures, which he gave at Harvard, were rendered more popular by the same happy way of putting things. His only predecessor in this field was Doctor Rush, early in the century. Doctor Tyler took a medical degree at Philadelphia, as well as at Harvard, and made two trips of observation to Europe.

Doctor Walker took his degree in medicine at Harvard. He then became an assistant at the South Boston city institutions. In 1847 and 1849, when cholera and ship-fever prevailed, he volunteered with Doctor Upham to assist in the "fever sheds" at Deer Island. He was appointed superintendent of the Boston Lunatic Hospital in 1851, and retained the position thirty years.

He at once gave up the use of stone cells for excited cases, diminished restraint, and improved the hospital in many ways. After many years of effort the city government bought a site for a new hospital. Plans were made and money appropriated, but the project was unexpectedly killed by the mayor's veto. Dr. Edward Everett Hale said of him, after his death, in 1883, "He was the personal friend of all his patients, and brought to the miracle of cure the only power which can effect it — the loving sympathy of the physician. He fairly commanded his broken patients by what we choose to call the magnetic power of his personal care. Behind all the resources of medicine, he had this requisite for victory — that he made them believe they would get well."

The recent deaths of two of my immediate predecessors in the chair of the New England Psychological Society have given that office painful associations for me. I saw Doctor Bancroft, as he was speaking, grow pale and drop into his seat, entirely hemiplegic. He was conscious and finished his remarks, and put the motion to adjourn. He remained conscious and calmly gave directions about his removal, and requested that his sickness be kept out of the papers, lest his wife be suddenly informed of it. He died a year afterward, and maintained that thoughtful considera-

tion of others, so characteristic of him, to the last. He had nearly reached the limit of his years, and his seizure at the post of duty was a fate to be envied and not dreaded.

He was educated at Dartmouth, taking also a medical degree in New York. He had a large general practice for twelve years, and was chosen superintendent at Concord in 1857. During the thirty-two years of his incumbency he modernized and enlarged the hospital, adding, not long before his death, a beautiful detached ward for private patients, called the "Bancroft Building," which will be a very appropriate monument to his memory.

Doctor Draper took cold while presiding at the same society, and died of pneumonia. He was in the prime of life, and also fell at the post of duty. His monument is to be found in the "Annals of the Vermont Asylum," a book of three hundred pages, and covering a term of fifty years. This history of the growth of a large hospital from small beginnings I have read carefully to the end, and found it as entertaining as a novel. Goethe says: "Grasp anywhere into the thick of human affairs, and you will always find them interesting." This is true even of life among the insane, especially when depicted with skill, as in this case. There is characteristic modesty, too, and nothing but a change in the superintendent's name shows that in 1873 Doctor Draper took up the work of his predecessor and carried it steadily on till his death in 1892.

Two more names are naturally associated by reason of their connection with the same hospital and their untimely or tragic ends. Doctor Sawyer died as the soldier dies, by accident, in the meridian of life and in his line of duty. He was seized by the throat by a maniac, causing fatal laryngitis. This risk we all share, though daily exposure, year by year, makes us indifferent to it. The danger is a real and ever-present one, as the lengthening list of martyrs in the cause of humanity shows. We all have known a sinking at heart at the threat of the paranoiac, especially when at large and full of his imaginary grievances.

Doctor Sawyer was a classmate of mine at Harvard, and went immediately to the Butler Hospital in 1859, on graduation, as an assistant. For nineteen years before his death in 1886, he was superintendent, and carried on the work of Doctor Ray with great success. "His personal qualities were such as endeared him to all his patients and friends. His manners were gentle and winning, and his character marked by a singular modesty, united with great firmness of purpose."

His successor, Doctor Goldsmith, died after two years' service of pneumonia at thirty-four. He had previously been superintendent of the Danvers Hospital for five years. His was another of those all too rare characters, singularly fitted for the service in which he engaged. He graduated at Amherst, and took his medical degree in New York. He was an assistant at Bloomingdale, and also with Doctor Clouston at Edinboro, and Doctor Major of West Riding. In 1883 he passed a second year in Europe, studying with Westphal and Krafft-Ebing, and visiting foreign hospitals.

A small memorial volume is before me with a portrait of Doctor Goldsmith. It is a face full of intellectual beauty, of high character, with an expression serious and gentle, fit exponent of his life. The book contains tributes of respect and affection from Doctors Gorton, Folsom, Nichols, Chapin, Cowles, Hack-Tuke, Miss Phelps, and Whittier. Who could wish more appreciative biographers?

"And what more shall I say? for time would fail me to speak of Brown, and Knight, of Booth, and Whittemore, and Shew. They also have obtained a good report." Like St. Paul, "They have fought a good fight; they have finished their course; they have kept the faith." The first two were active members for many years, and engaged in a work akin to ours—the care of the feeble-minded. Booth and Whittemore, after serving most faithfully for many years as assistant physicians, each had charge of the McLean Asylum for a year. They were both men of high character and marked ability, and died in middle life in the midst of their usefulness.

Doctor Shew took his medical degree at Jefferson. He was post-surgeon at Hilton Head during the war. In 1866 he was chosen superintendent at Middletown, and served twenty years, his death resulting from an accidental fall. He was of a cheerful and hopeful temperament, and of large executive ability. He was a skillful physician, and a sympathetic and appreciative friend, so that many of his patients became greatly attached to him.

Of living New England alienists it is not my province to speak. They are all young men, or of middle age, and belong to the new era of psychiatry. They work under the inspiration and by the light of the new psychology; they are all working to perfect their hospitals, public or private; to build new ones, or to improve their methods of treatment. May it be long before any of them needs a biographer. Outside the hospitals, but interested either in the practical or theoretical side of our specialty, are such men as Hall,

Donaldson, Hodge, Bowditch, Councilman, James, Royce, Münsterberg, Folsom, Jelly, Prince, Putnam, and Knapp.

The new school is less absorbed in hospital routine, is broader and more scientific than the old. As proof of this proposition, I would cite the fact that clinical and didactic instruction on insanity are given in all our New England medical colleges, and have been made requisites for graduation at Harvard. Laboratories for experimental psychology have been established at Harvard and Clarke Universities. As further evidence, take the four training schools for nurses of the insane, first established at the McLean Asylum; also the pathological laboratory there, and the work of Doctor Gannett at the Boston Lunatic Hospital. Also the fact that in Massachusetts there are now in process of erection a chronic asylum for the State, a municipal hospital for Boston, and a private hospital for the McLean Asylum. These are all on the segregate plan, and it is believed each will be the best of its kind in this country at least.

Another proof of the scientific spirit is the fact that the Boston Medico-Psychological Society not only includes nearly all the alienists of New England, but all the neurologists as well. It is a large and flourishing society, with monthly meetings for the reading of papers, and subscribes for a long list of special journals in several languages. It also invites distinguished specialists from distant cities to read before it, and to meet the physicians and surgeons connected with our hospitals and colleges socially. The last reader was the superintendent of the Johns-Hopkins Hospital, your honored secretary.

The same spirit of progress has happily infected our larger society, once limited to superintendents alone, and naturally most interested in the practical side of hospital management. Now any physician sufficiently qualified and interested may be elected to our number. Any unqualified superintendent may be kept out, being no longer a member *ex-officio*. Two-thirds of our fellows are already assistant physicians, so that young blood and new ideas ought hereafter to visibly affect our transactions. As we take our new departure, let us lay one wreath of immortelles on the altar of the past.

SOME REMARKS ON THE ADDRESS DELIVERED TO  
THE AMERICAN MEDICO-PSYCHOLOGICAL ASSO-  
CIATION, BY S. WEIR MITCHELL, M. D., MAY 16,  
1894.

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BY WALTER CHANNING, M. D.

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Nearly every point taken up by Doctor Mitchell has in some form been discussed by those having the care of the insane, and given rise to very serious consideration. At every stage of progress of the association, there have been anxious and able men in its ranks, alive to the problems and duties of the hour. They have not sat blind-folded, or played puss-in-the-corner, or milked the cows. This is a veritable fact, strange and impossible as it may appear to those ignorant of insane-hospital history. They were given a high trust, which was to take and care for the most unfortunate, weak, miserable, and pitiable class in the community. Neglected and abused even by their own families, the insane had no place to lay their heads, until hospitals, built, organized, and managed by medical men, had arisen.

Fifty years ago, when Ray, Kirkbride, Stribling, Brigham, Earle and the others, formed the Association of Medical Superintendents, it was not a question of knee-jerk, or ankle-clonus, or reaction-time which confronted them, but how to house the then already large numbers of insane, who, as shown by Miss Dix, were suffering the tortures of the damned in alms-houses and in their own homes; and from that day to this the pressure has never relaxed for more accommodations. There are still thousands scattered through the country, kept in the vilest of alms-houses, still suffering tortures. If any one doubt these statements, I will give him proof in this State of Massachusetts. Or let him turn to the history of alms-houses in New York within very recent times.

How best and cheapest to provide for the wants of the insane in State institutions is still the first question, which it is the bounden duty of the association to consider. "How shall we humanely care for those wretched creatures which society tramples on?" Miss Dix asked all those years ago, and the medical superintendents of insane hospitals have been the ones who have courageously and efficiently answered her ever since.

A number of years ago, the writer, fired by youthful enthusiasm,



conceived that it would be a noble purpose to enlarge the plan and scope of the association, and with a handful of others endeavored to have its name changed to the present one. It was urged that the time had come to leave building, and to give more time to the discussion of neurological and psychological subjects. The older men disapproved of such a change, and Doctor Nichols, a learned as well as a grave and dignified man, got up and said pompously that the superintendents were obliged to build, it was one of the most important things they had to do, and he believed they should come together and talk about the subjects that most interested them. And then the project fell flat.

At the time the writer was disappointed, but since then he has come to see better and better the true object of the association, which is to consider the practical management of insane hospitals and all subjects pertaining thereto. The medical superintendent, whatever he may wish to be, is essentially an executive officer, and if he is deficient in practical ability, though he might write a volume on the cerebral anatomy of a spider, would be of no value whatever. His real specialty is insane-hospital management. From force of circumstances he comes to know the insane as a mother knows her children, and gains a knowledge of them which no one can get who does not live with them. Such knowledge is peculiar and valuable in determining what the acts of the insane may mean, but whether it entitles a medical superintendent to be called a specialist, in a strictly scientific sense, is open to question. No man can do everything, and only in a very few cases are scientific and executive talent combined. Scientific men, put in charge of institutions, are apt to be failures, and the usual medical superintendent has little taste for science and can hardly give a proper medical twang to his annual report if he tries.

But why should he try? Why should not he and his confreres be free to come together and discuss any questions they please? The association is largely made up of able, efficient physicians of business instincts, a combination which makes them appreciate, as no other men ever have or can, the peculiar needs of the insane. They are not neurologists, or psychologists, and should not set out to be. Their work is one of the broadest humanity; namely, that of giving rest and succor to as many of a wretched and neglected class as a niggardly and ignorant public will allow, and their work will never be done until every insane pauper is the ward of the State. Let them never be frightened, or deterred, or turned aside from this



high purpose, however much they may be misunderstood by their well-wishers.

From his observation of insane hospital management, it is the writer's opinion that the chief medical officer must always have charge of all departments of administration. Other systems have been tried, but they have not been an unqualified success, for the instant a layman takes his (the medical officer's) place, the patient loses his identity as such. He becomes one of a large number to be clothed and fed for as little as possible. The humane and sentimental relation existing between physicians and patient gradually becomes dimmed, and finally lost altogether. There is something in the training of the medical man which makes him a little different from what he would otherwise be, for he is more gentle, tolerant, patient, appreciative, and sympathetic in dealing with poor human nature. Call the medical superintendent "farmer," "steward," "caterer," "treasurer," or whatsoever name we choose, there still beats within his breast a heart not dead to the cry of suffering and distress.

So much then experience seems to prove; we must have a medical man to administer the hospital in all its branches. Can he do much more than this? Let us imagine putting a neurologist of reputation at the head of an existing hospital. Is he to carry it on in the interest of humanity or science first? He will answer that the two can be combined; he will have a business manager, and give up his time to purely medical work. Where will he get his business manager, and if he does get him, how will he know he is doing his duty both by the State and its wards? He must admit every patient he can, for their number is legion, and he must usually spend only a definite sum fixed by law. Where has he got his experience to guide him in these vital matters, for on their settlement his ultimate success must depend. The first requisite must be the mastery of all the details appertaining to these things, and this requires not laboratory or bed-side experiment, but study of every department. He need not say he keeps a boarding-house, but if he is faithful to his trust, on him rests the final responsibility for seeing that his charges are fed in the best possible way, at the least cost. Will he relegate the authority to the steward, saying he is too busy with tests of reaction-time in dementia, then when complaints begin to assert themselves, he will find he is no longer the head, but one of two, and his house will soon be divided against itself, with the usual result. He may make wonderful experiments, and have rare

skill with electricity, and know something of massage, but once let the bread be sour, the sheets dirty, and the sewerage defective, and all his knowledge will not avail him. One thing is lacking, and that is executive capacity; he commands a ship which he does not know how to steer, and the sooner some one takes his place the better.

It is in the writer's opinion, as a rule, useless to expect that neurologists will make successful executive officers of insane hospitals, or that these executive officers will make successful neurologists, for each is working in a different field. Neither does he believe that even brilliant original work is any criterion whatever of efficient and thorough insane hospital work. On the contrary, with such contracted staffs of medical officers, as our hospitals usually possess, it might mean that the patients were being actually neglected. The point to consider is always, Are these unfortunates being considerably and properly cared for as individuals? And until this question can be answered in the affirmative, without hesitation, the original work must wait. Sometimes the writer has read reports of such work done, perhaps in an institution with nine hundred inmates, by one of the two assistant physicians. He could hardly understand how such elaborate investigations could be undertaken without infringing on the time belonging to those four hundred and fifty individuals under his care, and instead of judging of his capacity for the duties of his position by his published writings, he would have looked into the actual condition of those patients.

The attempt has been made to turn out original work in various insane hospitals in this country, but so far with very doubtful success. One striking example of such an attempt was that made at the State Insane Hospital at Utica early in the seventies. A skilled pathologist was employed, and he was fitted out with the best of apparatus at a large expense, and stimulated to do the best he knew how, and his results were widely published. But there was no lasting or even temporary effect. The whole thing was felt to be forced—a flash in the pan—and it gradually died of inanition. Such is one illustration of trying to introduce scientific research into hospital work. There have been others less mechanical, but have they had any far-reaching influence on the conduct of the institution? Supposing it be assumed that the Blockly Alms-house, which was a disgrace to civilization fifteen years ago, and is now again apparently, from what Doctor Mitchell says, should have a staff of three or four medical officers appointed to take charge of the

1,100 insane patients, and they should have a finely equipped "neuro-psycho-physiological laboratory" (let us call it) fitted up, and be set to work on lines of original investigation. If they actually take charge of the patients they must see them at least once daily, and many twice; and if the alms-house has ceased to be a disgrace, which we will pray for at no distant day, they must know that every one has a good, clean bed to sleep in; good, nourishing food to eat; clean clothing to wear; a neat place to stay in day and night; good ventilation and temperature in-doors, and fresh air and occupation. Medicine, electricity, massage, and bathing can be utilized, either before or after these things, according to one's scientific point of view. Notes must be made, of course, of many cases, and records written, and anxious friends informed by word of mouth or letter of the patient's progress.

When then, under these conditions, is the laboratory work to be done? "But they do it abroad," might be answered. "Well, then" we reply, "they must give their patients less individual attention than we are in the habit of giving them here, for if they actually attend to their medical duties, their time will be fully occupied." "But why should there not be internes to do the routine work?" might be the next question. At Blockly, of course, situated as it is, in a city, internes might be available, but most institutions are too remote from medical schools to be able to secure internes. Furthermore, a large part of the regular medical work must be done by the regular medical officers, if it is to be reliably and satisfactorily done for the public good. They may be supplemented by students, but can not relegate to them their responsibilities.

And here, perhaps, will be the place to consider the subject of visiting staffs for insane hospitals. One fatal objection to such a plan is the remoteness, just spoken of, from medical schools or large medical centers. No staff could be secured to spend several hours daily in a visit to distant points; so this plan would not work for most of the hospitals. For those easy of access, it would be an interesting and desirable experiment on many accounts. Expert neurologists and psychologists might compose the staff, and they could institute and carry forward investigations and experiments in the hospital laboratory, drawing, of course, their material from among the patients. The resident medical officers could continue to take the actual care of the inmates as before. The visiting staff would learn a good deal about insanity, and the resident staff

would get an inkling of neurology and psychiatry, and thus the good of all would be advanced. Before the experiment failed, as it inevitably would after a while, the writer fears, two points would be brought out with convincing clearness. First, it would be found that the inmates of an insane hospital are largely under treatment because society can not care for them. The chief medical officer is their guardian, and they are his helpless children, not only to have their bodily ills relieved, but to be watched over and protected. The custodial care is quite unlike that pertaining to any other class of the community, and is both delicate and exacting. It requires great tact and discretion, and is a responsibility of no mean proportions to the conscientious physician. Second, it would be found that the therapeutics of neurology are not after all a novelty in well-managed hospitals, even to the point of the animal extracts. We have recently been told that these therapeutics are not efficacious in all cases in their own field, and they present the same short-comings in the insane hospital. The fact is that, while there have been splendid advances in the anatomy and physiology of nervous diseases, their treatment and cure is both unsatisfactory and baffling. It is highly probable that the day will come when simple suggestion will accomplish quite as much, if not more, in the cure of these diseases, than anything that is now done. Both hypnotism and mental healing promise to put regular therapeutics to the blush, if present indications can be relied on.

Doctor Mitchell conjures up, as many a hospital superintendent has done, a pleasing vision of an ideal hospital. He would have a cheerful entrance, with a broad, open gate (such as most hospitals now actually have), and he lingers upon the picture of a "well-dressed head nurse, neat in cap and apron," receiving the patient and himself in a small room. He loves, as we all do, this ideal, well-dressed head nurse. What a multitude of sins a cap and apron cover nowadays in a nurse! How many the writer has known of who were hard, cold, and unsympathetic, and totally unfitted for their calling, though trained in the best hospitals and wearing the whitest of caps and broadest of aprons! At times he has longed for the dowdy old woman in her black alpaca, with no cap, and little apron, a born nurse from her youth up, with tact, sympathy, and love in her heart! There are too many trained nurses, following the profession simply as a money-grubbing business, and deficient in all the qualities which make the true nurse. Some day there may be an examination of the heart as well as the head.

In going on to describe the general plan of his "ideal hospital," Doctor Mitchell speaks of cottages for ten, or twelve, and smaller homes for those able to pay more, and then wards near the administration building for those able to pay little or nothing. Of course such a plan as this is applicable to a well endowed incorporated hospital like Bloomingdale, or the Butler Hospital, but these are exceptional institutions, providing for a very small percentage of the insane, the immense bulk of whom go to the public hospitals. In the writer's opinion three grades of hospitals are to be considered, which are: Those providing for the pauper insane, or the public hospitals; those providing for the impoverished, middle, and upper classes, or the incorporated hospitals, and those providing for the affluent middle and upper classes, or the small hospitals, now private, but later perhaps in some instance to become incorporated. The system of classification of course varies in the different States, many of those belonging to the second class going to the public hospitals, and many of the affluent going to the incorporated institutions, but fundamentally the principle appears to be a correct one. It may at once be said it does not generally prevail at present, for the incorporated hospitals receive a large proportion of the affluent class, and the private hospitals make a very small showing as to numbers. The writer does not contest this point, he would only take the ground that incorporated hospitals of large size, meaning by that, those that accommodate more than fifty, should be essentially for the indigent members of the upper and middle classes. They certainly are founded on a philanthropic basis, and fail in accomplishing their highest purpose, if they are built and organized on a plan suited to the rich few, instead of the indigent many. Their motto should be the greatest good to the greatest number, and not a moderate amount of good to a moderate number. If this principle were rigidly adhered to, it is probable their per capita cost would be decreased, their accommodations extended, and many of the worthy, but poor upper and middle classes saved from association with the pauper insane in the public hospitals.

The demand for private institutions has steadily and rapidly increased during the last fifteen years, and they may now be said to be on trial in this country. No doubt the demand has in part risen from a desire to save the patient from going to a formal institution, and give him the advantage of "home treatment" in a modified form away from his home. To fulfill their purpose, they must be small, yet large enough to obtain the services of physicians of



skill and experience. Ten is probably too small a number and fifty too large. The mean should fall between these limits. They should have the most diversified and plastic organization, with single houses for single patients, or houses for several, and every detail arranged for the comfort, convenience, and individualizing of the patient. Whether this class of institutions will continue to be, in the future, of a private character, is a matter which time will settle. If they are thoroughly and frequently inspected by a board of supervision, there need be no doubt that they are as well managed, as such facilities as they possess will allow, and just here a difficult question presents itself which can only be alluded to. Even a small number of patients require large grounds, good buildings, the best of food, skilled medical service, and nursing, and appliances for gymnastics, driving, diversified occupation, and amusement. To furnish these things properly requires a considerable amount of capital, and where is it to come from? The public are attracted by the idea of sending an insane person into a doctor's family to be treated, but if the doctor is an unsuccessful, shiftless, and unskilled member of the profession, he is hardly a desirable person to assume such responsibility. It is no doubt right that doctors should be allowed to take single patients into their families as boarders rather than patients, provided they are looked after by a competent authority, but when any one starts a private hospital, it should have certain definite and prescribed facilities, if it is to do justice to the patient and the public, and as has already been said, the cost is so large that few single individuals can furnish the requisite capital. As time goes on the requirements for obtaining licenses will be more and more rigid, and more of the small hospitals will be incorporated than at present.

In Doctor Mitchell's ideal hospital, as already mentioned, the administration building is to be flanked by the wards for those who pay little or nothing. Such an arrangement as this is a good illustration of a mistaken way of classifying patients in a hospital on a financial basis, instead of on the basis of disease. It would be a serious injustice to bring all kinds of patients, acute and chronic, noisy, quiet, or convalescent, together in a few wards, simply because they were poor. The superintendent's ideal plan is much better. There are very few of such wards, which are used for the more acute cases that properly can be classified together. Patients are retained in them (they often are called "infirmaries"), only until they can be transferred to cottages, where they will come



in contact with others in a similar condition of illness. Even in existing hospitals patients are necessarily, in severe cases, classified only on the basis of disease. In the ideal hospital there should be financial equality, so that it may live up to its highest function, which is to cure disease.

Doctor Mitchell's patient is not at once put in charge of a nurse. "An assistant male or female, a physician, is with him for three days or more (one of his class, or above it)." To carry out such a plan as this would require not only an ideal hospital, but also an ideal bank account. As the ideal we are considering is either a State or incorporated hospital, we must imagine from one to several patients being admitted daily; let us assume there is an average of two. These would require the constant services of six physicians. Unless we are to idealize the patients as well as the hospital, we should have a large majority of paupers, many of foreign birth or parentage, speaking only a foreign tongue; a large percentage of all would be chronic cases, already residents of other hospitals. Some would be quiet and depressed, others violent and homicidal. Many would refuse to utter a word, and others would rapidly develop delusions, if closely observed. In some a physical examination would lead to violence, and it might take weeks to bring it about. The very fact that the patient felt himself under the espionage of this superior being, would tend to develop suspicions and foster those already existing. The insane person, even when quite sick, still has a personality which is his own property, and which he guards with a degree of his ordinary care and prudence, and he will not part with it, even if cajoled by the softest-tongued young or old doctor now in existence. It is reckoning somewhat without one's host, when one expects to get very far with a newly admitted patient, by putting him in the society of a physician for three days. A normal individual would divulge little under such circumstances, and an insane person might be quite as difficult a subject. Provided there were enough assistants willing, to undertake what would essentially be nurses' duties, and an institution rich enough to employ so many, it is probable that, with few exceptions, little would be gained over what could be accomplished by shorter periods of association. The writer naturally believes that medical records should be thorough and accurate, but also believes they can be made so without a prolonged period of forced association.

The ideal hospital, Doctor Mitchell says, should have (as most do) a steward for making purchases, a senior physician, a trained neurolo-

gist, passing two-thirds of his time in the hospital (which would generally be impossible on account of distance, as we have shown above), resident physicians in charge, paid internes, a pathologist, a bath-master, a skilled electrician, an expert masseur, city oculists, gynæcologists, consulting neurologists, all well paid, used on the scale suggested. It is doubtful when so much expense can be incurred in one institution, but let it not be forgotten some of these officials already exist in insane hospitals. The bath-master is an unknown factor, and if he uses water as severely as it seems to be used abroad, it is to be hoped he will not make his advent for some time. Nevertheless in our insane hospitals, as in our general hospitals, we utilize water far too little, and we deserve to be criticised for not using it more.

There are various problems which Doctor Mitchell mentions or discusses, such as bolts and bars, mechanical restraint, open doors, etc., which have over and over again been considered by hospital medical officers, and they have come to wise conclusions, which are pretty generally acted upon. Mechanical restraint is reduced to a minimum in the best hospitals. Its total abolishment is not a justifiable procedure, and should the writer be told that in a large hospital it was never used, he would shrug his shoulders, and say to himself, "that is not the truth; in some way, some kind of restraint is used, however much it is denied." It is much more manly to assert that there are cases where it should and must be used, and such is the attitude of many of the best of American as well as English superintendents. They refuse to deny plain facts, in order to make a good showing. Anything is better than the horrible encounters which occur between patients and nurses employing so-called "manual restraint." Both may be injured bodily by such collisions, and patients are often made more irritable and violent, and nurses more brutal, and the harmony and good-feeling which should exist between them is destroyed for all time.

No doubt it is a painful thing for a well, rational person to have restraint placed upon him, but the wildly excited insane are not well and rational, and it is hardly fair to compare them together. The form of restraint makes a very great difference, and only certain kinds should be allowed. That restraint is not always repugnant to insane persons can be testified to by almost any hospital superintendent who probably has had patients come to him and ask to have it applied when feeling the premonitions of excitement. One patient of the writer's, who lived at home, and went about in society,

occasionally had attacks of paroxysmal excitement and violence. At such times he would get his restraining apparatus himself, take it to his wife and beg her to put it on him. To him it not only possessed no terrors, but was a positive blessing, and not one in disguise by any means.

Of bolts and bars it may be said they grow less and less conspicuous in each new hospital, but in large institutions patients must in some way be securely kept, or the public would be up in arms immediately. Open doors are also admirable, and they also are increasing, but the increased watching they entail is often a source of extreme annoyance and irritation to the patient. One of the questions which occasions the conscientious superintendent the most solicitude is that of the personal liberty of his patients. He wishes to restrain them as little as possible, and with the least friction, and he has learned to open the doors, and leave off the bars in as far as he can do so with the best practical results. Give him buildings varied enough to properly classify his patients, and more doors will open at once.

There are other points considered by Doctor Mitchell, which the limits of this paper render it impossible to discuss. The attempt has been made to say something for the association by one who belongs to it, yet is hardly of it. This peculiar position allows him to understand and recognize the spirit of the work of its members and appreciate their virtues, while not blinding him on the other hand to their short-comings, which do not seem to him very glaring, and largely grow out of the peculiar relations which they bear to the public. The standard of hospital care set by the foremost members is a high one, perhaps quite as high, when looked at from all points, as that of Doctor Mitchell, and in the end will accomplish even greater results, because it has grown out of a practical acquaintance with the insane, covering, one might say, the last hundred years.

## THE PREVENTION OF TUBERCULOSIS IN HOSPITALS FOR THE INSANE.

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In large asylums, reformatories, and prisons, the prevalence of phthisis is a matter of common observation. While statistics prove that tuberculosis causes one-seventh of the deaths among the whole population of the world, the figures collected by Hagen (1) in 1850 from the reports of many asylums showed that among the insane more than one-fourth of the mortality was due to this fatal disease. In 1892 Clouston, who has studied this subject more than thirty years, concludes (2) that "The fact that, under the most favorable conditions of life and treatment that we can at present devise for the insane in the best asylums, three of them die of pulmonary phthisis to one person in the general population at the same age, is one full of interest and significance." Ireland (3) says fully two-thirds of all idiots die of phthisis. So great is the liability to tuberculosis in certain prisons that commitment to them is almost equivalent to a death sentence. Cornet (4) found that during a period of fifteen years the mortality from phthisis among males in Prussian prisons was 45.82 per cent of all deaths; in females 49.33 per cent. In the prisons of Austria the mortality from this disease reached 61 per cent during four years, while in the penal institutions of Bavaria it was only 38.2 during eight years (5). Among the 1,400 convicts of the Illinois State Prison at Joliet fully one-third have consumption, and nearly all the deaths in that penitentiary are due to this single cause (6).

The frequent association of mental disease with pulmonary consumption and scrofula has, for over half a century, attracted the attention of alienists. Well-sustained evidence ascribing this relationship to heredity, habit, or diathesis is to be found in the standard works on insanity. A special form of mental disease called phthisical insanity is also recognized by some authors (7).

In commenting upon this association Bucknill (8) makes an abstract from his annual report of the Devon County Asylum for 1861: "The number of patients who die of phthisis is always a source of peculiar anxiety, inasmuch as the development of this disease may be regarded as a test of the sanitary conditions of an

institution." After thirteen years of additional experience and observation, Bucknill (9) concludes: "That phthisis, which forms so large a proportion of the mortality of asylums for the insane, is the produce of the institutions and not of the cerebro-mental disease."

Clouston says (10), in writing upon phthisical insanity, that "In the older institutions, where the hygienic conditions were bad, the number of deaths from phthisis was often from 25 to 30 per cent of the whole number who died. And when the post-mortem records of these institutions were examined, from 30 to 60 per cent showed signs of tubercular deposit to a greater or less extent. The sanitary conditions of modern hospitals for the insane are, however, much better than they were fifty years ago, . . . so that recent statistics of the prevalence of phthisis are far more favorable than they used to be. In the Royal Edinburgh Asylum for the Insane, from 1842 to 1863, the percentage of deaths from phthisis in the whole number of deaths was twenty-nine, while for the ten years from 1879 to 1888, it was only 13.6 per cent."

During the first twenty-three years of the existence of the Iverness (Scotland) Asylum, 35.4 per cent of the whole deaths were due to phthisis. In commenting upon the report of that asylum for 1887, a writer in the *Journal of Mental Science* (11), remarks that "When eighteen deaths out of forty-seven (38 per cent) are due to phthisis, it is time to cease speculations concerning the prevalence of phthisis in the Highlands, and to take active, practical steps to discover the real cause of the pest."

According to the summary given by Griesinger (12), "Esquirol considered more than a third of his melancholics phthisical, and Calmeil found tuberculosis in two-fifths, and Pinel in one-sixth of their autopsies. In Vienna it was met with in more than one-third in a total of six hundred and two autopsies made in three years; in Prague in more than two-fifths, and in the asylum for chronic cases at Colditz, in five-elevenths; in Palermo, in thirteen years, in one hundred and ninety-two cases of death, in almost one-fourth. In certain asylums, as the Bicetre, its rarity was remarkable." More recent investigators (13) estimate that phthisis causes but 9 per cent of the mortality of Italian asylums.

In the United States the death-rate from tuberculosis is also high in some hospitals for the insane. According to Workman (14) in 1862, in eight American asylums consumption was the cause of 27 per cent of the whole number of deaths.

In the Lunatic Asylum of South Carolina the proportion of deaths from tuberculosis upon the whole mortality for the ten years ending November 1, 1893, varied from 14 to 34 per cent, averaging 22 per cent. Careful observation and inquiry shows that the disease prevails in some wards of the old building, built in 1822, and now occupied for the most part by colored women; in the section of the new building, built in 1856, and now assigned to white men, and in certain wooden pavilions occupied by colored men and women. The remaining eighteen wards for white men and women are free from the disease. Prior to 1868 very few negro patients were admitted, and records of phthisis are rare. Since that date there has been a steady increase in deaths from tuberculous diseases. In 1883, with an average population of 564 there were ten fatal cases of tuberculosis, while in 1893 there were thirty-nine deaths from that cause in an average population of 764. That is, in the decennial period the population increased 35 per cent, and the mortality from tuberculosis, 290 per cent. The old building, which is most infected, was the fifth insane asylum built in the United States, and, conforming to then existing ideas, is very like a prison. It occupies a city square of four acres, is built in the form of a crescent, and is shut in by high brick walls. The bedrooms are small, and poorly lighted and ventilated. Judged by modern standards, the whole building is typical, both architecturally and hygienically, of what a hospital should not be.

Tabulating the mortality from tuberculosis for thirteen years I find that thirty-two more negro women — the class of patients occupying this old building — have died of the disease than the sum total of deaths from the same cause among white men and women and colored men.

TABLE I.  
DEATHS FROM TUBERCULOSIS FROM 1880 TO 1893.

WHITE.			COLORED.			Grand Total.
Male.	Female.	Total.	Male.	Female.	Total.	
38	52	90	43	165	208	298

These figures are the more appalling when we consider that our average population is 190 white men, 240 white women, 170 colored men, and only 140 colored women. Granting that the negro race is peculiarly subject to tuberculosis — and facts may be



cited to the contrary — we are forced to admit that there have been other causes in operation to produce such a frightful mortality as is here shown.

The second table shows that of the whole two hundred and ninety-eight cases, somewhat less than a third died during the first year after admission to the asylum, the remaining two-thirds after an asylum residence of one to twenty years. In other words, the chronic cases of insanity are most prone to tuberculosis.

TABLE II.

LENGTH OF ASYLUM RESIDENCE OF FATAL CASES OF TUBERCULOSIS.

	WHITE.			COLORED.			GRAND TOTAL.	PER CENT.
	Male.	Female.	Total.	Male.	Female.	Total.		
Under 1 month.....	3	0	3	1	7	8	11	3.7
1 to 6 months.....	5	2	7	7	25	32	39	13.1
6 to 12 months.....	4	3	7	4	27	31	38	12.8
1 to 2 years.....	1	9	10	8	30	38	48	16.1
2 to 3 years.....	3	2	5	6	20	26	31	10.4
3 to 5 years.....	8	14	22	7	34	41	63	21.1
5 to 10 years.....	9	17	26	7	20	27	53	17.8
10 to 20 years.....	4	4	8	3	2	5	13	4.3
Over 20 years.....	1	1	2	0	0	0	2	0.7
Total.....	38	52	90	43	165	208	298	100.0

TABLE III.

FORM OF MENTAL DISEASE OF FATAL CASES OF TUBERCULOSIS.

	WHITE.			COLORED.			GRAND TOTAL.	PER CENT.
	Male.	Female.	Total.	Male.	Female.	Total.		
Melancholia, acute....	4	2	6	3	13	16	22	7.4
Melancholia, chronic..	4	14	18	6	19	25	43	14.4
Mania, acute.....	4	2	6	6	30	36	42	14.1
Mania, chronic.....	10	19	29	13	54	67	96	32.2
Secondary dementia....	5	5	10	4	21	25	35	11.8
Epileptic insanity....	5	0	5	7	16	23	28	9.4
Senile insanity.....	0	2	2	1	6	7	9	3.0
Idiocy.....	3	3	6	1	1	2	8	2.7
Imbecility.....	3	5	8	2	5	7	15	5.0
Total.....	38	52	90	43	165	208	298	100.0

From the reports of ninety-eight other American asylums I have calculated the death-rate from tuberculosis, and find that in many

of them also the disease is virulently prevalent, while in others it is rare or entirely absent. The latter comprise small institutions; the former large hospitals, the highest mortality being found in colonies for the chronic insane.

TABLE IV.

MORTALITY FROM TUBERCULOSIS IN NINETY-EIGHT AMERICAN ASYLUMS.			
No. of asylums.....	3	Percentage of deaths.....	0
".....	1	".....	0-1
".....	2	".....	1-5
".....	14	".....	5-10
".....	16	".....	10-15
".....	24	".....	15-20
".....	14	".....	20-25
".....	13	".....	25-30
".....	6	".....	30-35
".....	3	".....	35-40
".....	1	".....	50-60
".....	1	".....	60

As these asylums are located in all parts of North America—North, South, East, and West—these figures seem to indicate that, regardless of climatic conditions, the disease is ubiquitous.

The reports from eight asylums show the total mortality, including that from tuberculosis from their beginning, and give a sum total of deaths amounting to 5,760, of which 1,215, or 21 per cent, were from tuberculosis. Out of one hundred and four cases of melancholia, upon which autopsies were held by Blackburn (15) in the Government Hospital at Washington, 37 or 35 per cent were found to be suffering from tuberculosis, which was "the direct or indirect cause of death."

These figures do not overstate the truth regarding tuberculosis as a cause of death in asylums. For, as was pointed out by Clouston (16) in 1863, "when such expressions as 'exhaustion,' 'general decay,' 'natural decay,' and 'marasmus' are put down as causes of death . . . we can not arrive at any correct idea of the true causes of mortality in asylums," and when "phthisis pulmonalis" is the clinically "assigned cause of death in only about one-half of those in whom tubercular deposition is found after death." It is important here to recall Bucknill's opinion (17) that the insane in private dwellings are not more liable to phthisis than is the general population.

In the face of such facts are we not forced to raise the question, Whether there does not lurk in some of our institutions a pernicious form of hospitalism which demands rigid investigation into its causation and earnest efforts toward its extermination?

## PREDISPOSING CAUSES.

The chronic forms of insanity are most prone to phthisis. While Table III assigns to chronic mania the largest percentage of cases of tuberculosis, most writers give precedence to chronic melancholia, terminal dementia, and epileptic insanity.

According to Savage (18), "The vital depression (of melancholia) seems to prepare a fit site for the lower organisms to flourish in." It is Clouston's opinion (19) that, "If the bacillar theory of phthisis is true, the general conditions within the body and outside it that produce a suitable nidus for the development of the tubercle bacillus must always be of the highest consequence. And here we have something that increases the fertility of the soil threefold for the bacilli. We know that almost everything that depresses the nutrition tends toward phthisis if long continued. We know also that insanity has in most cases trophic symptoms. The nutrition of the tissues is commonly depressed, this going along with the mental phenomena as an essential part of the morbid process."

While the direct inheritance of tuberculosis may be admitted as a rare possibility, yet the congenital transmission of phthisis pulmonalis is now subjected to doubt. In the light of modern investigations (20) it appears that the old idea of consumption being inherited in from 24 to 59 per cent of all cases can not be accepted. On the other hand, the fateful predisposition to the disease is undoubtedly transmitted by the tuberculous of their offspring. Von Ziemssen (21) aptly describes this tendency to the disease as that "unknown pathological something we call predisposition to tuberculosis, applying this term to a certain constitution of the tissues of the organism which furnishes a favorable soil for the reception of the germs." This predisposition may be congenital or acquired.

The bacteriologists have recently taught us that animals by nature insusceptible to a disease may be rendered susceptible by change of environment. In other words, they have shown how predisposition may be acquired. Thus, pigeons which, as a species, are immune to anthrax are rendered susceptible by starvation (Canalis and Morpurgo), or dogs, hens, frogs, and pigeons by enforced thirst (Pernice and Alessi), and "Guinea pigs and white mice which are resistant against avian tuberculosis can easily be infected on being kept in a warm chamber at 33-35 degrees C." (22).

In man's environment also are found some of the acquired predisposing causes of tuberculosis. Thus overcrowding, imperfect ventilation and absence of sunlight, dampness, and defective plumbing and drainage, singly or in combination, have been repeatedly shown to be the predisposing cause or causes of a high death-rate from phthisis in asylums in Great Britain and elsewhere (23).

In prisons Cornet found as predisposing to pulmonary tuberculosis such influences as insufficient ventilation and exercise, want of variety in food, and improper care of cells. Von Ziemssen (24) justly considers such psychical factors as remorse, yearning for liberty and family, loneliness, and absence of excitement among predisposing elements.

#### EXCITING CAUSE.

The theory of the infectiousness of tuberculosis began with Isocrates and Aristotle, and has had its individual advocates through succeeding ages (25). On the other hand, the investigation of the disease by the experimental method belongs almost to one generation. Corroboration of the experiments and discoveries of Villemin, Koch, and Cornet, seems to have established the truth of the hypothesis of contagion so long held by isolated clinicians, and as a result a large body of physicians now class tuberculosis among the infectious diseases. After mature deliberation such well recognized authorities as the boards of health of New York City and the State of Michigan have within a year placed tuberculosis upon the list of diseases dangerous to the public health. It is believed by many competent authorities that one case of phthisis can not develop without infection from a previous case. Infection usually takes place by inhalation of pulverized sputa containing the tubercle bacillus, which is the sole exciting cause of the disease.

The bacillus tuberculosis is from 1-7,000 to 1-12,000 of an inch long, and about one-fourth as wide as long. It is a spore-bearing, parasitic micro-organism requiring for its development a temperature of 86 to 104 degrees Fahr. Patients in a moderately advanced stage of pulmonary consumption expectorate in twenty-four hours from seven hundred and twenty million to four billion tubercle bacilli. Neither the germs nor their spores grow outside the living body except under artificial culture. In any medium they are of slow development, no signs of growth being visible before ten days or two weeks. They are extremely susceptible to direct sunlight, which kills them in a period of time varying from a few

minutes to some hours; and in well-lighted rooms they live only six or seven days (Koch). In dried expectoration the bacilli and their spores retain their vitality and infecting power from six to ten months or even longer. In sputum they are destroyed in twenty hours in a 3 per cent solution of carbolic acid. Freezing does not kill all the germs, and boiling for a shorter time than half an hour is probably not effectual. The bacillus lives in an alkaline or neutral medium, but is probably killed by strong acids, such as the gastric juice at the time of active digestion. Infection through the milk or meat of tuberculous cows is not uncommon, especially in children and persons subject to indigestion. Salted meat may also infect, as the bacilli are not destroyed by the process of salting. That direct infection through mucous membranes, cuts, or abrasions may take place is well authenticated.

In addition to predisposing conditions most people require prolonged exposure to the exciting cause to contract the disease, and the extent and the intensity of the affection depend upon the number of bacilli introduced, or in other words, upon dosage.

Such is the conception of the causation of tuberculosis that with remarkable slowness has been gaining ground since Koch announced in 1882 his discovery of the tubercle bacillus.

Upon the evidence I have presented the following conclusions seem warranted:

1. That tuberculosis is two or three times as common in institutions as in the general population.
2. That among the insane two-thirds of the cases have had an asylum residence of over one year.
3. Therefore, in asylums the chronic insane are most liable to the disease.
4. That the disease is frequently the result of hospitalism and its prevalence may be regarded as a test of the sanitary condition of an institution.
5. That improved sanitation alone has diminished the death-rate but has not exterminated the disease.
6. That the disease is really ubiquitous, although some small, well-conducted asylums are free from it.
7. That asylum statistics, based upon clinical diagnosis alone do not give the full mortality of tuberculosis.
8. That in private houses the insane are not more liable to phthisis than are other people.

9. That direct heredity is probably less potent than has been supposed.

10. That predisposition to tuberculosis may be congenital or acquired.

11. That among the more important external predisposing influences are imperfect ventilation, absence of sunlight, dampness, defective plumbing and drainage, insufficient exercise, want of variety in diet—in fact, an unhealthy environment; but such psychical elements as depression of spirits, homesickness, loneliness, monotony, etc., may also play a part.

12. "The history of the disease, clinical observation, and bacteriological investigation all prove the disease communicable, the element of infection being a specific germ contained in tuberculous discharges." (26).

13. "Being communicable the disease is therefore preventable."

What, then, are the means of prevention? In hospitals for the insane the methods of prophylaxis against tuberculosis seem naturally to fall under four heads:

- I. Management of tuberculous patients.
- II. Disinfection of rooms, wards, and buildings.
- III. Protection of non-tuberculous against infection.
- IV. Prophylaxis against infection of new hospitals, wards, or rooms.

#### I. MANAGEMENT OF TUBERCULOUS PATIENTS.

The danger lurks in the discharges—sputa, pus, or dejections—from tuberculous lesions. All such excretions must therefore be promptly destroyed. Cornet is authority for the statement that "With proper care as to cleanliness the phthisical patient is innocent even to his immediate surroundings." Commonly the most important procedure is that the sputum of the phthisical be received first in spitting cups or cuspidors containing water\* which must be afterward thoroughly sterilized. The paramount importance of this requirement is accentuated by Cornet's investigations which showed the presence of tubercle bacilli in the dust and wall-scrapings from rooms of phthisical patients who were at all careless in expectorating, while no bacilli were found when the patient faithfully carried out instructions to use sputum-cups. The use of handkerchiefs or similar material to receive sputa is highly objectionable because of the rapid drying and easy pulverization of sputa.

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\* Carbolic acid solutions can not safely be intrusted to insane patients.



The shaking out of an infected handkerchief readily diffuses the bacilli through the air.

There seems to me no valid reason against isolating insane patients who have reached the advanced stage of phthisis. Assuredly the tuberculous should not be permitted to sleep in associate dormitories with the non-tuberculous. Even if allowed to mingle with others by day, each phthisical patient should sleep in a single room prepared with special reference to his disease. The sentiment which still prevents the isolation of the phthisical in private families should have no influence in hospitals. The disease will be stamped out or its ravages minimized when physicians and others recognize it as a communicable disease, and take steps toward complete isolation and disinfection. Cases of diphtheria, or any of the commonly recognized infectious diseases appearing in asylums, are isolated as a matter of course. Shall we be less vigilant in dealing with a more insidious and numerically more fatal disease?

Each consumptive should be provided with eating utensils for his use alone, and these articles should be boiled after every meal. The bedding as well as the clothing of such patients should be kept separate from other clothing, both in the wards and in the laundry.

The walls of the sleeping-rooms should be made germ-proof by impervious plaster, paint, and varnish. The entire walls should be cleansed with a cloth wet with carbolic solution (1 to 20) twice a week, or rubbed down with squares of bread, which, with the crumbs carefully swept up, should be burned. The bedroom floor requires perfectly fitting linoleum for its proper protection and cleansing, unless the floor has been made and prepared by modern methods. The floor should be mopped daily with carbolized solution rather than swept in the ordinary fashion. In fact, brooms and dusters have no place in the management of the apartments of consumptives, even if allowed elsewhere in the hospital. The furniture must be confined to necessities, and the use of curtains and carpets forbidden. The bedstead should be of painted iron, so as to be subjected to regular disinfection with carbolic acid solution.

Nurses should be instructed to give especial attention to the phthisical, see to their proper exercise and nourishment in the early stages of the disease, and prevent them from carelessly expectorating about the wards and staircases, instead of using the cuspidors. In fact, I am inclined to think that on account of the general lack of coöperation on the part of insane patients, and because of the

importance of carrying out minute details in the management of the tuberculous, our main reliance in preventing the spread of phthisis in asylums must rest upon the intelligence of the nursing service.\*

## II. DISINFECTION.

That the rooms occupied by consumptives may become the source of danger to themselves and others has been demonstrated by Cornet and confirmed by other investigators.

The experiments of Delepine and Ransome (27) seem to indicate that chlorine and sulphurous acid gas are not effectual in disinfecting rooms that have been contaminated by the tuberculous. The usefulness of milk of lime (whitewash) in destroying tubercle bacilli is also open to serious doubt (28).

After a room has been vacated by a phthisical patient, ordinary walls should be scraped and replastered. Hard-finished walls that have been specially prepared by painting and varnishing should first be rubbed from above downward with bread forty-eight hours old, cut six inches square with crust on each piece, and afterward washed with 5 per cent carbolic solution, the floors also being subjected to the same treatment. Subsequently a thorough cleansing with soap and water should follow. Nuttall states that corrosive sublimate is not effectual in destroying tubercle bacilli, while the Philadelphia Board of Health recommends its use in a 1 to 1,000 solution.†

Infected clothing requires boiling or exposure to super-heated steam for one hour, or disinfection in 5 per cent carbolic solution for twenty-four hours.

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\* In commenting upon the mortality in the female department of the Harrisburg (Pa.) State Lunatic Hospital, Dr. Jane K. Garver, in her report for 1893, says: "Fourteen deaths (out of thirty-nine) were due to phthisis alone, and two to phthisis with other diseases. Eight of these cases developed in the new building, four in the old building, and four were contracted before admission. Excepting these four, all were residents of the hospital for from two to sixteen years, and those in the new building had resided there for several years. These facts point with an emphasis greater than words to the reality of all that has been said in regard to overcrowding in this hospital. It also seems to corroborate the theory of communicability of phthisis. Disinfection and isolation have been used in each case as far as our means permit, but it seems that further efforts in the direction of hygienic and sanitary precautions are called for."

† This apparent disagreement arises from the well-known fact that corrosive sublimate alone coagulates albumen, and is, therefore, not efficient as a germicide for tuberculous matter. The addition of tartaric or citric acid prevents this coagulation and enables the mercury to act upon the germs. Corrosive sublimate combined with these acids or analogous substances is probably used by the Philadelphia Board of Health.

## III. PROTECTION OF THE NON-TUBERCULOUS.

The importance of nutritious diet and warm clothing, and of proper ventilation and other methods of sanitation in hospitals, need not be dwelt upon at length before this association. The danger of infection through meat and milk renders necessary the inspection of meat supplies and the test of dairy herds by means of tuberculin in the hands of experts, especially when the prevalence of tuberculosis gives reason to suspect them as possible sources of infection.\*

Among the smaller details, to which sufficient care seems not to be given, is that of sweeping and dusting. In the rooms of consumptives these daily requirements of hospital housekeeping should be done with moistened cloths rather than in the ordinary way, which only serves to scatter the dust. Moistening the floor by sprinkling and then sweeping with a broom is at best an unsafe compromise. Scrupulous cleanliness should be observed in assembly rooms and workshops.

Doctor Trudeau's conclusion (29) about the treatment of phthisis is here apropos:

"All means which tend to increase the vitality of the body cells have been found to be precisely those which are most effectual in combating tuberculosis; one by one, specific methods of treatment, which for a season enjoyed popularity, have fallen into disuse, and hygiene, climate and feeding—in other words, a favorable environment—have alone stood the test of time." To this may be joined Von Ziemssen's statement (30), that of all the depressing "factors which impair the resisting power of the tissues and cells none has such an important influence as the want of sufficient muscular action out of doors and of sufficient fresh air."

The well recognized beneficial effects of an out-of-doors life upon the phthisical gives us additional reason for encouraging our able-bodied patients to join in the work about farm and garden, or to take part in regular gymnastics. It also emphasizes the necessity of walking parties and tennis, croquet, etc., for the less robust. Since it appears that cases of chronic insanity and dementia are particularly prone to phthisis they should be forced to exercise out of doors instead of being permitted to mope in corners. In brief, when the season or weather is favorable, all classes of the insane who are not bedridden should live out of doors, a part of the day at least.

\* The State Board of Health of California found more than 50 per cent of the cows used at the Stockton Insane Asylum infected with tuberculosis in 1894. (Jour. Amer. Med. Assoc. Aug. 25, 1894, p. 303.)

**IV. PROPHYLAXIS AGAINST INFECTING NEW HOSPITALS AND WARDS.**

In planning new hospitals, attention should be given to the need of having isolating wards or rooms especially adapted for the care of contagious diseases. In these wards phthisical patients should be cared for and treated apart from the non-tuberculous. The walls of these rooms should be impervious and without corners or angles. There should be no crevices in the floors, and when cracks appear they should be calked.

"With the downward systems of ventilation, having foul-air ducts on the floor level, much may be done toward lessening the number of micro-organisms inhaled with the dust of floors, carpets, etc., by giving the foul air a downward instead of an upward tendency." The freest natural ventilation is demanded in addition to any artificial system that may be employed. An additional plea for more sunlight in asylum wards is given by the knowledge of its destructive action upon the tubercle bacilli.

You may ask, If this conception of the infectiousness of tuberculosis and its prevention is true, what results have been attained by it? Let me quote from Dr. Lawrence F. Flick (31), the president of the Pennsylvania Society for the Prevention of Tuberculosis:

"Italy, in less than a century, reduced the mortality rate from the disease in her midst from that of a most virulent epidemic to a comparatively rare disease. England, by establishing special hospitals for the treatment of pulmonary tuberculosis, and the consequent isolation, of its tuberculous poor, reduced its mortality 50 per cent in forty years, and Philadelphia, by preaching the doctrine of contagion and teaching its people methods of avoidance and prevention, has reduced the mortality rate from the disease 20 per cent in eight years."

According to Doctor Woodhead (32), proper management and disinfection have brought about a diminution in the deaths from phthisis in the Grand Duchy of Baden from 3.08 in one thousand in 1882 to 2.80 in one thousand in 1887, a percentage of decline which, Doctor Woodhead estimates, would in the British Isles amount to a saving of nearly ten thousand lives per annum.

In Nuremberg's orphan asylum, with four hundred children under perfect prophylaxis, there have been but two or three cases of tuberculosis in eight years (33).

This paper has been prepared that the truth of the facts presented may be judged by the experience and knowledge of the members of this association. All of us recognize the necessity of

eternal vigilance in matters of hospital hygiene. If my facts are true, then a high death-rate from tuberculosis means bad hospital hygiene; and a very high mortality, criminal negligence. The causes must be found and eliminated. Several years ago Prudden (34) justly said: "We are apt to forget that as soon as we know the cause and the means of prevention of a disease like consumption, the responsibility for a large death-rate is no longer to be laid to the charge of Providence or fate, but at the door of human ignorance or carelessness."

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## FREQUENT DISORDER OF PNEUMOGASTRIC FUNCTIONS IN INSANITY.\*

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It would not be within the appropriate limits of this article, even on this semi-centennial occasion, to mention to my hearers by way of preface the anatomical and physiological researches which have within the last fifty years so vastly increased our knowledge of the functions of the pneumogastric nerve.

Suffice it to affirm that this knowledge, taken in connection with pathological facts, is now such as to account for certain symptoms not infrequently present in cases of insanity.

An attempt will be made, therefore, within the brief scope of this paper, to offer some scientific rationale for certain clinical phenomena familiar to observers of mental disease, and consisting chiefly of functional disorders of organs within the region of distribution of the pneumogastric nerve.

A momentary review of the anatomical facts of the subject is first in order.

The deep origin of the vagus or pneumogastric nerve is in a tract of gray matter beneath the lower and outer half of the floor of the fourth ventricle; its surface origin is by eight or ten filaments emerging from between the restiform and olivary body and uniting to form the trunk of the nerve which, springing from the medulla between the glossopharyngeal above and the spinal accessory below, passes out of the cranium through the jugular foramen and down the neck in the sheath of the carotid vessels into the thorax and to the upper part of the abdomen.

During this extensive course from above downward it gives off branches to the pharynx, larynx, trachea, œsophagus, heart, bronchi, lungs, stomach, spleen, liver, and intestines. Its functions are in the main motor and sensory, and, to avoid repetition, it is stated broadly at once that most of its motor fibers are to be traced ultimately to spinal accessory sources.

The pneumogastric both inhibits and accelerates circulation and respiration and has also vasomotor and trophic influences. The

\* Read before the American Medico-Psychological Association, at Philadelphia, May 17, 1894.



anatomical division of this whole topic is as simple as any, and the subject will be presented therefore in the order of the regional distribution of the pneumogastric branches from above downward, beginning with the disorders of its pharyngeal functions as witnessed in cases of insanity.

The pharyngeal branch of the pneumogastric nerve supplies the principal motor fibers to the muscles and constrictors of the pharynx, and to loss of the motor influences which it conveys is due the paralysis of the pharynx both partial and complete, found in certain forms of insanity.

In dementia paralytica some or all of the muscles and constrictors above mentioned may be paralyzed, and the degree of difficulty in swallowing varies accordingly, and the pathology in these instances is doubtless degeneration of the pneumogastric and spinal accessory nuclei. A like pathology of nuclear changes also holds good for the dysphagia of certain cases of insanity complicated with locomotor ataxia or with bulbar paralysis, but in dementia syphilitica the paralysis of the pharynx may be due to syphilitic growths involving the roots of origin of the pneumogastric and upper roots of the spinal-accessory nerve. In certain forms of organic dementia with central brain lesions and hemorrhage, softening, or pressure of medulla, or pons pharyngeal paralysis may also be present.

There is also loss of function of the pharyngeal and of other branches of the pneumogastric nerve in typhomania and other forms, with acute encephalitic and meningeal inflammations, and also in cases with effusions of fluid exerting pressure in the fourth ventricle. The pathological diagnosis in these cases is important and they often require artificial feeding, and the dysphagia may be mistaken for voluntary rejection of food.

The changes in respiration and in cardiac rhythm in the above cases will be referred to later. They are to be regarded as further evidences of pneumogastric lesions, like the failure of action of the soft palate in instances with nasal intonation, and passage of food into the posterior nares in deglutition, as the palate muscles are in part innervated through the pharyngeal branches of the pneumogastric.

There are other cases presenting minor degrees of paresis of pharyngeal muscles and varieties of dysphagia, due doubtless to vagal disorder of some kind, but not traceable to organic central lesions, like those first mentioned.

Spasm of the pharynx is a manifestation of functional pneumogastric disorder not uncommon among the insane. It may take the

form of globus hystericus, or attend hypochondriacal cases with persistent delusions of inability to swallow, or it may constitute the motor aura of epileptic insanity.

It may render artificial feeding very difficult, and in one case under observation it was an absolute impediment to the use of the ordinary nasal tube for the purpose of alimentation.

It may possibly furnish some reasonable basis of explanation of a symptom encountered occasionally in hypochondriacal patients who are unable to swallow in the presence of others, as in a case mentioned by Gowers. In this same class of patients delusions of foreign bodies in the throat are due to paræsthesia of the pharynx.

There are numerous and interesting affections of the larynx in insanity, due to disordered functions of the pneumogastric nerve or of one or both of its laryngeal branches. The superior laryngeal nerve gives sensation to the larynx above the vocal cords, supplies the cricothyroid muscle, conveys inhibitory impressions to the respiratory center, and causes glottic closure and arrest of the diaphragm in deglutition.

To heightened irritability of this nerve in hysterical and hypochondriacal insanity is due reflex and paroxysmal cough and persistent laryngeal hyperæsthesia. The latter affection is so pronounced that an attempt at forced alimentation in one of these will provoke violent cough, or vomiting, or inhibition of respiration, carried often to a most alarming degree.

Paræsthesia in the region of distribution of this nerve also accounts for the familiar delusions of hypochondriacal cases with imaginary foreign particles in their larynx.

There is also anæsthesia of the larynx in several forms of insanity, and in general paresis it is often complete before paralysis of the pharyngeal constrictors begins, and to it is to be attributed the deglutition pneumonia of the early stages of paresis.

The fact that cough, as an objective sign of pulmonary affections, is often absent in insanity may in some cases be explained on the ground of suspension of the sensory innervation of the superior laryngeal nerve and of impressions from the different fibers of other vagal branches.

The inferior or recurrent laryngeal nerve furnishes motor innervation to all the muscles of the larynx except the cricothyroid. Varying degrees of paralysis and of spasm of these muscles are common symptoms in insanity. This whole group of laryngeal affections, like all pneumogastric disorders in mental diseases, has a

varied pathogenesis, though as a rule positive organic lesions are to be found. Thus in general paresis these disorders are due to progressive degeneration of the pneumogastric and spinal accessory nuclei — in alcoholic dementia to central sclerotic changes — in acute toxic insanity to neuritis of the vagal-nerve trunk — in syphilitic dementia to luetic growths involving the roots of origin of the pneumogastric — in phthisical insanity to tubercle or pleuritic adhesions exerting pressure on the nerve at the apex of the lung — in delirium acutum to intense encephalitic and meningitic diseases with ventricular effusion and basal pressure, and in tabetic and bulbar-paralytic cases to progressive central and nuclear lesions.

There are also in insanity functional forms of paralysis of the larynx. Thus the adductor paralysis in hysterical insanity with resulting complete aphonia is a pneumogastric disorder which may vanish and reappear, or may be so constant as to be mistaken for insane mutism. Another form of functional adductor paralysis is to be seen in shouting cases of mania from laryngeal overstrain, from which complete recovery may not follow for weeks or months.

The lowered tone and monotonous and husky character of the insane voice in general is in itself often only an indication of defective pneumogastric innervation.

Spasm of the muscles supplied by the laryngeal branches of the pneumogastric is also a frequent symptom in insanity.

The preliminary scream in the convulsions of epileptic cases and the laringismus stridulus in hysterical insanity are of this nature, and spring from laryngeal adductory spasms.

The laryngeal crises in tabetic cases are to be classed in this same category, and severe attacks of spasmodic glottic closure may constitute one of the earliest symptoms of general paresis, and some years ago a case of this kind was recorded by the writer in an article entitled "Laryngeal Hyperkineses."

Symptoms of disordered function, referable to the cardiac branches of the pneumogastric, are frequently to be observed in mental diseases. Physiological experiments as well as clinical and pathological observations show that the pneumogastric is regulatory of the heart's action and inhibitory of the general vasomotor center in the medulla.

The intracranial lesions, involving the vagus at its origin in paretic epileptic, syphilitic, alcoholic, and other toxic forms of insanity, are attended by remarkable cardiac disorders, and in certain forms of insanity without demonstrable organic lesions of nervous centers

the disturbances of the heart are still to be regarded as neuroses of the cardiac branches of the pneumogastric nerve. One of the most common of these heart symptoms is tachycardia. The frequency of the pulse varies from one hundred to one hundred and fifty beats per minute for hours or days together, without any corresponding rise of temperature, so that the use of the thermometer, of auscultation and percussion and the search for disease of internal organs are in vain, as the real diagnosis is cessation of the cardiac inhibitory action of the pneumogastric. It is of interest to note here also the physiological reason for the rapid change in pulse rate, corresponding to a quick succession of violent feelings in acute mania through the extensive central connections of the pneumogastric nerve with emotional cortical regions, and it may be added that the emotional depression of dyspeptic disorder may be produced through this same reflex channel.

The inverse affection of tachycardia, namely, bradycardia, is also to be found, more especially in cases of primary dementia, melancholia attonita, epileptic stupor, and the final stage of general paresis with a pulse rate of from thirty to sixty per minute, and often accompanied by diminished arterial tension, general vasomotor paresis, dilatation of cutaneous capillaries and cyanotic extremities.

Other symptoms of pneumogastric disorder in insanity are the frequent changes in the cardiac rhythm with various forms of irregularity, intermission and palpitation of the heart. Under this head come the sensory cardiac neuroses—the painful and suspended heart's action of hysterical and hypochondriacal cases, the severe cardiac aura or epileptic insanity, the complete momentary stasis of the heart and feeling of impending dissolution of acute melancholia, and the precordial panic and pseudo-angina pectoris of completely developed forms of mental depression. It is also of clinical interest to mention here the weak and imperfect heart sounds—the frequency of venous throbbing in the neck and of arterial pulsation in epigastric, abdominal, and other distant parts.

The cardiac crises of ataxic, paretic, and alcoholic cases are of a more serious nature, and spring from degenerative changes of the vagal and accessory nuclei. There are also various incidental cerebral lesions in insanity which may affect the heart's action by irritation or suspension of pneumogastric functions, such as basilar meningitis in phthisical cases, or softening and cerebral hemorrhage in organic dementia, syphilitic gummata at the base of the skull, cerebellar abscess or meningitis with effusion into the cerebellar

fossa, or, as in two cases in which the writer made an autopsy meningitis following otitis media.

The pulmonary branches of the pneumogastric give sensibility to the bronchial mucous membrane, and convey both motor and sensory fibers to the trachea, bronchi, pulmonary lobules, and air cells, and probably supply also vasomotor and trophic influences to the lungs.

The symptoms of disorder of the functions of these pulmonary branches of the *vagus* are so frequent in insanity that they merit a thorough study on the part of alienists.

There are certain general facts that are so suggestive in this connection that they deserve to be stated. In the first place there is the fact that phthisis pulmonalis is vastly more frequent among the insane than among the sane. Moreover, there are undoubted vicarious relations between pulmonary consumption and insanity.

The total general mortality from other pulmonary disorders is considerably greater in the insane than in the sane population. From a review of a large number of reports of hospitals for the insane, it appears that large mortalities are nearly always due to pulmonary diseases, and this fact is confirmed by my own observation for the last twenty-five years among more than ten thousand cases of insanity that have been under my charge.

Now, of late years, the theory that all pulmonary consumption is due in the first instance to defective pneumogastric innervation has gained certain intelligent adherents, who claim with some plausibility that all are exposed to the germs of disease, but that bacilli only multiply and thrive in lung-tissue of lowered vitality. This theory, though not here endorsed, is of some significance in this connection. There is also the very important fact that a very large proportion, probably not less than 50 per cent of all paretics, perish finally from phthisis, pneumonia, oedema, or some like affection of the lungs. Now disease of the nuclei and trunk of the pneumogastric nerve has been found in so many cases of general paresis that it is evident that there must be a causative relation between the pneumogastric and pulmonary lesions in these cases. Degenerative changes in the pneumogastric nerve have also been recorded in epileptic, alcoholic, and other toxic cases, and now that attention is turned in this direction there will doubtless be additional pathological observations recorded. Even in the absence of evident organic lesions it is to be borne in mind that nutritive and circulatory defects of central nuclei would fully account for disorders of pneumogastric functions.

Special attention is here called in epileptic, alcoholic, paretic, and some other forms of advanced dementia, to a very frequent type of lung disease, due to pneumogastric lesions, as above mentioned. The lung affection is initiated with moist rales and signs of serous effusions in the lower lobes first. Respiration becomes labored, and the pulse rate greatly increased, but there is seldom high temperature. One or both lungs may be involved, and oedema is present before death, which usually occurs in the course of the first week. The typical auscultatory signs of pneumonia are wanting, and the autopsy reveals bloody serum and occasional pus cells throughout the lung instead of hepatization following a frank inflammation of pulmonary tissue, as in pneumonia.

In the status epilepticus, and in serial paretic convulsions the interesting phenomenon of respiration of ascending and descending rhythm, known as Cheyne-Stokes respiration, is due to central pneumogastric lesions. The insane often complain of want of air—they have acute feelings of suffocation—they tear the clothes loose about their neck and rush to doors and windows to breathe. They also suffer from pseudo-asthmatic attacks. These and other like symptoms are often only manifestations of a pneumogastric neurosis.

There are also in mental disease forms of hastened, retarded, and variously modified respiration from disordered centrifugal and centripetal influences proceeding through the pneumogastric nerve. These affections were fully described last year by the writer in the *Journal of Nervous and Mental Diseases*, under the head of "Modifications of Respiration in the Insane," and time and space will only permit a passing reference to them here.

The œsophageal branches of the vagus convey both sensory and motor fibers, and symptoms of their disorder in insanity arise chiefly from central nuclear lesions.

In general paretics paralysis of the œsophagus is sometimes present, and the food may accumulate and by distention of the tube exert pressure and cause signs of suffocation or even syncope. In a sudden death from this cause the writer found the œsophagus completely distended with soft food, and as there was complete anaesthesia of all the parts the first sign of distress was fatal syncope.

The gastric vagal branches give sensibility to the mucous membranes of the stomach, impart motor influences, and control in a measure gastric secretion, digestion, and absorption.



Symptoms of functional disorder of these gastric branches of the vagus are very common in insanity.

The gastric crises of ataxic and paretic cases arise from central degenerations or irritations of the vagal and spinal accessory nuclei. Spasmodic contractions of the stomach sometimes occur, and may interfere with artificial feeding or lavage of the stomach. In hysterical cases contractions of the cardiac sphincter of the stomach or of both sphincters with distention of gas may arise.

Reflex or nervous vomiting is also in some cases a most persistent and troublesome symptom, which may be caused by arachnoid intraventricular effusion or meningeal inflammations at base of skull or irritations of the trunk or nucleus of the pneumogastric nerve.

Other motor neuroses here to be mentioned are the reverse peristaltic actions of the stomach, the eructations, the regurgitations, and the ruminations of the insane, since the centrifugal impulses for these movements proceed through the reflex influence of the pneumogastric.

Stomachal vertigo and unsteady gait may also be a reflex symptom through central vagal connections.

Numerous sensory gastric neuroses of the insane are likewise to be cited among functional pneumogastric disorders. Such are anorexia in melancholia—bulimia and acoria in general paresis—various forms of gastralgia, the painful epigastric aura in epileptic cases, also feelings of heat and of cold, of fullness and emptiness of the stomach, and various kinds of nervous dyspepsia.

Insanity from the abuse of tobacco also has in some cases well-marked neuralgia of the terminal fibers of the gastric branches of the vagus with irregular cardiac action.

In epidemic influenza among the insane the gastric symptoms are often very severe, and it is likely that the pneumogastric nerve becomes involved in the general inflammatory processes of this disease.

The abdominal branches of the vagus influence the glycogenic function of the liver and intestinal digestion, but knowledge is not yet sufficiently definite in this direction to admit of its application in mental diseases. After section of the intestinal branches of the vagus purgatives fail to act, and it is likely that this physiological fact may afford some explanation of the obstinate constipation among the insane who manifest other symptoms of pneumogastric disorder.

There is also a dearth of positive knowledge as regards the

action of the pneumogastric on the kidneys, though irritation of this nerve is known to produce diabetes. The frequency of kidney diseases in the insane may some day be in part explained through pneumogastric irritation.

Much future research will be necessary in order to clearly show the full history of vagus diseases in insanity, but sufficient positive points have already been given, it is hoped, to excite an interest in this subject, and to fully justify the belief, that there is frequent disorder of pneumogastric functions in insanity. The existence of these pneumogastric affections in mental diseases is in accordance with our knowledge of experimental physiology and of pathological law and is confirmed by clinical observation of insane patients, and is proved by autopsical examinations in the insane, showing both macroscopical and microscopical lesions of the pneumogastric nerve and of its central nuclei.

## SOME OBSERVATIONS ON THE BEVAN LEWIS METHOD OF PREPARING BRAIN TISSUE FOR THE MICROSCOPE.

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It would be entirely unnecessary for me to attempt to enumerate the many advantages of the Bevan Lewis method over that of the old one, chrome reagents. For there are but few of us who have not witnessed in the laboratory the deleterious effects on brain tissue of various hardening reagents, or carefully perused a description of their evil results from the distinguished author's writings on the subject. Nevertheless, I should like to call the reader's attention to some of the small but important points in the preparation of a good brain section. Especially to those who have but recently begun work by this method, I trust these few practical ideas will be of value.

In the beginning of this article, it is taken for granted that the freezing apparatus is in a position which will command both good light and plenty of room for work, and everything is in order to make brain sections.

I should first like to emphasize the importance of knowing the exact part of the brain from which the section is taken, so that a scientific record may be kept of the lesions found and their exact location in the cerebral cortex. To do this, a photograph of the brain should be made as it appears before section, or even before the lateral ventricles have been opened, so that the shape and contour may be preserved; such as the prominence or atrophy of certain lobes or convolutions. But if this can not be done through lack of knowledge of the camera, the next best thing is to make use of hectographs, and upon these mark the convolutions or areas 1, 2, 3, or a, b, c, etc., from which you have selected your specimen. The glass slides should also be marked in the same manner, corresponding to the number of letters on the hectographs. These hectographs can then be filed away with the autopsy report of the case. The glass slides can be marked by a glazier's pencil, so that they will retain their identity all through the process of washing and staining. Of course, the paper labels should be adjusted after the section has been stained and dried.

The brain should be kept free from water, otherwise ice crystals will hinder the cutting and staining. The pia, if allowed to remain intact, will in a short time be inspissated in such a manner that it will be impossible to remove it without considerable manipulation and laceration of brain tissue. Especially is this true in cases following inflammation of the membranes and outer cortical layers, as acute alcoholic mania, paresis, and chronic meningitis. Therefore the pia, while fresh, must be removed over those areas intended for examinations. I have been unable as yet to make good sections from brain with pia attached, as the firmness of the pia is in marked contrast to the pultaceous character of the gray matter.

In removing part of a convolution for section, carefully cut as nearly parallel as possible to the medullated nerve fiber running from the corona radiata to the ganglion cell in the cortex, so that the sections may show all the five or six layers of the cortex in the same plane.

For securing the specimen to the stand, while the process of freezing and cutting is going on, I have tried several different substances, but am unable to find anything better than a solution of gum arabic, although that has the disadvantage of allowing the specimen to slide on the stand before it has thawed, the gum melting a little more rapidly than brain tissue. This necessitates frequent freezing, especially when one is working alone and cares to cut only a few sections at a time.

The sections need to be very thin in order to take the stain well. If they are not so the stain will work at best but imperfectly and we get the peculiar foggy appearance of a poorly made section. The chief difficulty in trying to float thin sections in water is that they are apt to "dissipate like the morning mists" if taken from the knife while still frozen, and again, if they are held too long on the blade; it is almost impossible to remove them without spoiling the section, but with a little care and attention we can tell just how long to wait without getting these bad results. As for myself, I wait until the section resting on the blade begins to change from the white chalky appearance to a light gray color, frequently dipping the knife in ice-water, and quickly wiping it dry. If the knife is frequently dipped in ice-water and then hastily wiped dry it will materially aid in rendering the section less tenacious to the blade.

It is an important although difficult matter to tell how long the sections may remain in the water bath without material injury and yet be able to get them out whole, for upon this, in a great measure,

depends their success. It is only by long soaking of thin sections that the dendrons or cell processes stand out clearly with the cell. In some forms of insanity alterations in number and length of dendrons are among the most noticeable lesions; therefore, it will be seen that the above process plays no small part in the technique of a good slide.

We must exercise skill and deftness in removing sections from water, as the specimens, when soaked for ten or fifteen minutes, no longer cling to surrounding objects, and must be carefully dealt with lest the gray matter separates from the white, or the gray matter itself disintegrates and the relations of the sections be lost. A few minims of one-fourth of 1 per cent of the osmic acid solution in the baths renders the tissue stronger, but in doing this, one should bear in mind that if too much osmic acid is used in the bath or if the sections stay in too long, the tissue will be "burnt" and made worthless. My guide is to use four or five minims to the ounce of water and to remove the section as soon as it changes from the delicate pink appearance to a brownish hue. On withdrawal of the section, if osmic solution is not used in the bath, it should only be allowed to touch the section in its more concentrated form, then washed. If the osmic solution is used longer, the next dye of aniline blue black will stain unequally and imperfectly. Only too often I find a whole set of sections spoiled in this way by being over-stained by osmic acid. I can not impress the disadvantages of overstaining with osmic too strongly upon your attention. While some advantage is gained by applying the counterstain aniline blue black before the section is perfectly dry, yet it does not seem of sufficient moment to stop one from making thirty or forty slides first.

There are two preparations of aniline blue black in use, the English and German. The former is to be preferred, as it gives a clearer and sharper stain. Sometimes the specimens get doubled in staining; if so they can be easily readjusted by again floating them in the water bath, but this hinders re-staining in case the first application was insufficient. Therefore, the re-floating should be avoided until staining is complete.

In applying the dyes to the sections, I use common medicine droppers or pipettes exclusively and stain each section individually. I think whatever is lost in time is gained in good specimens.

My experience by this method teaches me that the older the brain, i. e., the longer time elapsing after autopsy, the more readily

the osmic acid acts, but the opposite is true with the blue black dye. In mounting, I make use of balsam in xylol since the xylol is of material advantage in clearing the section.

In conclusion I wish to state that in some cases of paresis and in other allied cerebral diseases with rapid destructive tissue change, it has been found, however perfect the stains may be, and however well they may be applied, yet the sections will stain only in spots, which, I think, rests upon some peculiar degenerate condition of the brain in these diseases, such as the fatty metamorphosis so often spoken of in connection with brain involution.

When all has been said that can be, of working on fresh brain tissue, there yet remain imperfections in the method which only a greater knowledge of the brain's normal structure and function can remove. For instance, all the dendrons are not certain to be stained and processes in which the disease may be most prominent will remain in the foreground hidden from the microscopist's eye. And the fact that the fresh method is desirable because brain tissue can be examined so soon after autopsy, is after all, not entirely to the method's advantage. The manipulation of soft and mobile brain, such as the removal of specimen from cortex, the cutting by microtome and handling in staining, slight as they may be, are yet sufficient to destroy the relation of one cell to another and disarrange their contiguity of dendrons. Again, great care is necessary to be able to say that an apparent diminution in or excess of a cortical layer is not due to the manner of cutting, instead of some brain abnormality.

Notwithstanding the foregoing remark, I am confident that by a much longer experience in examining fresh brain tissue we shall be able to say that with many so-called functional disorders of the mind there is an accompanying definite organic change, either in the brain's vascular structure or in its ganglionic network, which will be demonstrable under the microscope, and in that way throw more light on a nomenclature of mental diseases with a pathological basis; so that we shall be able to discard, in a measure, our present unsatisfactory and unscientific symptomatic classification.



## BODY WEIGHT AND MENTAL IMPROVEMENT.\*

BY DR. A. R. MOULTON,  
Philadelphia.

Although defective nutrition of the body is well known to be one of the principal predisposing causes of nervous and mental disorders, I am unable to find in the books and monographs at my command a distinct discussion of the relation between bodily weight and mental condition.

In giving the clinical histories of their cases, few authors record the weight of their patients when well, and most of them make only a cursory allusion to the *avoiropois* as affected by treatment, or to its significance as a desirable condition.

Full stress has been laid upon the harmful effects of overwork in general, the debilitating influences of disease, and the dangers attending privation and care; the subject of toxic agencies in the organism, and their action upon the brain, has been well-nigh exhausted, and the question of the effects of "organic sympathies" in causing mental break-down, or continuing the subject of them in a state of mental disorder, is receiving its share of discussion; but under the head of treatment, the importance of fattening patients before lasting improvement can be expected has not, to my mind, received the consideration it deserves. There is, however, testimony which bears out the writer's belief that improvement in the recoverable class of the insane depends upon improved nutrition, is usually preceded by gain in weight, and that successful treatment is along those lines.

Clouston speaks of one of his cases "getting very stout," after which he improved and returned to his family. To maintain this condition "every effort is made to keep up bodily health and stoutness." Again he says, "every pound of body-weight gained means a gain in nervous and mental tone."

One of his examples is of a man who "gained a stone in weight, and was well in six months," while another was discharged recovered at the end of five months, "having gained a stone and a half in weight," showing the hopefulness in some forms of melancholia, and giving a key to the line of the treatment pursued. Clouston also

\* Read at the annual meeting of the American Medico-Psychological Association, held at Philadelphia, Pa., May 15-18, 1894.

records the case of a woman who got well after being five years insane, having become "very stout and healthy."

In another case the same author "did not give up hope, for the patient digested eleven glasses of milk a day, and gained weight," and as a prophylactic in one case, besides following certain set forms as to his daily life, he was advised to weigh himself every month and to stop work and take a sea voyage "when he found he had lost three pounds."

Macphail, in his chapter upon the "Blood of the Insane," in "Tuke's Dictionary of Psychological Medicine," remarks that "there appears to be a close connection between gain in weight, improvement in the quality of the blood, and mental recovery."

Bucknill and Tuke long ago said: "Mental health depends so greatly upon physical health, that the physician will constantly be able to promote the prophylaxis by giving good advice as to the growth of a sound body." They truthfully assert that the brain must have a free circulation of arterial blood, and that "in the stage of acute insanity the treatment is physiological."

Stearns, in directing as to the treatment in melancholia, states a very important truth in describing a condition, frequently met with in all forms of insanity, and his conclusions are in accordance with those of other observers. He says "the tendency is to lose flesh and become emaciated; the nerve centers are imperfectly nourished and consequently have an insufficiency of energy; hence, when the patient once begins to increase in adipose tissue, it is a most favorable indication, and one looking toward recovery."

Doctor Chapin has frequently, in his hospital reports and elsewhere, shown that recovery from mental disorder is intimately connected with, if it does not depend upon, improved general health, and in his report for 1892 he says: "We continue to recognize that our acute and recoverable cases embrace a large number who have passed into a stage of various forms of mental disorder, preceded by nervous prostration and caused by overwork, illness, some defective nutrition of the nervous mass, some deficiency in the quality of the blood, or quantity of same. They have a chance to make a good recovery with improved sleep, nutrition, and an average increase of weight, usually amounting to twenty pounds."

The following cases treated in the department for men, Pennsylvania Hospital for the Insane, are illustrative of the thought herein expressed:

## No. 1.\*

Nov. 15, 1892. ....	141 lbs.	Aug., 1893. ....	134 lbs.
Dec. 12, 1892. ....	143 "	Sept., 1893. ....	136 "
Jan. 1, 1893. ....	140 "	Oct., 1893. ....	140 "
Jan. 23, 1893. ....	135 "	Nov., 1893. ....	136 "
Feb. 27, 1893. ....	137 "	Dec., 1893. ....	137 "
March 13, 1893. ....	136 "	Jan. 1, 1894. ....	139 "
April, 1893. ....	140 "	Jan. 8, 1894. ....	141½ "
May, 1893. ....	135 "	Jan. 15, 1894. ....	150 "
June, 1893. ....	136 "	Jan. 22, 1894. ....	150 "
July, 1893. ....	132 "		

1. Is a lawyer, twenty-seven years of age, who was admitted to the hospital on April 28, 1892. Three uncles had been insane, all of whom recovered. This patient was intemperate, and had been in poor physical health for some years. He had been melancholy and suicidal for four months, and when admitted was confused, had hallucinations of hearing, a sluggish circulation, sub-normal temperature, was thin and anæmic. He had suffered from insomnia; and chloral, the bromides, and coffeeine had been given, which had had a stupefying effect upon him. For many weeks his mental reflexes were slow, and he suffered the usual dyspeptic symptoms of melancholia. He gained flesh, and on November 15th (nearly seven months after admission) weighed one hundred and forty-one pounds, which was increased by three pounds during the next month, when the records state that "he is quite bright, answers questions more readily, and talks freely with his friends." During the next month his weight fell off nearly twenty pounds, and his mental condition suggested approaching dementia.

Following this period, from the last of January, 1893, to the middle of the next November, the patient was in an unsatisfactory state, at first being dull, almost stupid, then he became exalted with violent tendencies. His weight varied from one hundred and thirty-two to one hundred and forty pounds, and when it was lowest he was wakeful and noisy at night, in addition to being opinionated and irritable.

In November, 1893, it was necessary to place him in the refractory ward, which is so constructed that patients may get an abundance of out-door air. This man spent nearly fourteen hours a day out of doors. Most nourishing food was continued, and from this time on the curves of mental coherence and of bodily weight were steadily upward. His delusions vanished, and there was the usual transformation seen in patients passing from stupor, with impulsive

\* As a convenience for the printer, the tabulations were substituted for the weight charts, as originally prepared.

interruptions, to complete convalescence, when the weight was one hundred and fifty pounds.

This gentleman has no recollection of making the journey from his home in Cuba to the hospital, and occurrences at the institution previous to November, 1893, are vague and shadowy. His brother and sister brought him to the hospital, remained in the city and visited him twice a week for a year, yet the only remembrance he has of their presence is the impression that somebody used to call upon him, and that he called the gentleman "John," not his brother's name.

## No. 2.

July 30, 1892.....	118 lbs.	Nov. 20, 1892.....	132 lbs.
Sept. 3, 1892.....	112 "	Nov. 28, 1892.....	135 "
Oct. 26, 1892.....	132 "	Dec. 10, 1892.....	135 "
Nov. 15, 1892.....	128 "		

2. Is a young man who was twenty years of age when admitted to the hospital on July 23, 1892. There was a decided insane diathesis in his family, though no member had become actually insane. He had always been thin and delicate, and within a comparatively brief period he grew to be very tall, measuring six feet two inches. Four months previous to admission he had la grippe. He worked hard as a bookkeeper, and first showed signs of insanity four days before admission. When received he was in a furiously maniacal condition, and he was too sick to be placed on the scales until July 30th, when he weighed 118 pounds. Under nourishing food, tonics, cod-liver oil, the hypophosphites, etc., he did well, and his excitement was subsiding, when, in the middle of August, he was made much worse by the injudiciousness of his family; his mania returned with increased violence, and on September 3d his weight had fallen to 111 pounds. Food in the shape of milk, egg-nog, chicken broth, strong beef tea, etc., was given every hour and a half (fully five quarts of milk or its equivalent being taken during the twenty-four hours), and as soon as he would masticate and swallow solid food it was pushed. By the last of October he had reached 132 pounds in weight, but, although his circulation was less sluggish and his blood had gotten richer, it was nearly another month before his excitement and incoherence had decidedly improved. Then he would sit down quietly, began to make up his sleep, of which he was very short, and he passed on to recovery, going home on December 10th. He weighed at the time 135 pounds, a gain of twenty pounds. He has remained well, and, as is not at all unusual after a patient resumes the active duties of life, has lost a little weight.

## No. 3.

Feb. 27, 1893.....	154 lbs.	July 3, 1893.....	149 lbs.
April 10, 1893.....	147 "	July 10, 1893.....	150 "
May 22, 1893.....	148 "	July 24, 1893.....	154 "
May 29, 1893.....	145 "	Aug. 7, 1893.....	160 "
June 19, 1893.....	146 "	Aug. 14, 1893.....	165 "
June 26, 1893.....	147 "	Aug. 28, 1893.....	171 "

3. Is a young man, a student, twenty years of age. He was admitted to the hospital on February 14, 1893. He had applied himself closely to his studies, and during the previous October he slept badly and became exhilarated; then he was melancholy for two weeks and began to lose flesh, when positive mania supervened, which increased down to the time of his admission. He was much excited for a few days, but under forced feeding and some stimulation, with the necessary remedies to encourage the excretions and aid digestion, he became quiet and soon slept well. On February 27th, thirteen days after admission, he weighed 154 pounds. The psychical storm through which he passed was followed by stupor, with imperfect circulation, cold extremities, constipation, etc. His weight went down to 147 pounds in April, rose a little, and by the last of May had fallen to 145 pounds, when he did not respond to the calls of nature, nor even seem to understand what was said to him. He was at times suddenly violent. During the next two months he received constant personal attention, was kept much in the open air, and, when the weather was suitable, under the direct rays of the sun; his circulation was stimulated by massage, walking, calisthenics, etc.; large quantities of nourishing food were given, and tonics administered. At the end of July he weighed 154 pounds, his circulation had improved, and, though passive, he was no longer violent. From this time on he gained flesh very rapidly, and his mental improvement was equally marked. He proved to be a fastidious young man, whose disposition was happy and mental reflexes responsive. When discharged on August 28th he weighed 171 pounds, a gain of twenty-six pounds.

## No. 4.

Feb., 1893.....	144 lbs.	Aug., 1893.....	163 lbs.
March, 1893.....	150 "	Sept., 1893.....	165 "
April, 1893.....	150 "	Oct., 1893.....	169 "
May, 1893.....	154 "	Nov., 1893.....	174 "
June, 1893.....	158 "	Nov. 20, 1893.....	176 "
July, 1893.....	160 "		

4. Was admitted on February 15, 1893, aged fifty-three years.

His father had senile dementia, his mother was afflicted with lateral sclerosis, and he has a cousin in the hospital. The subject of this note had been intemperate many years, and he had lost nearly seventy pounds in weight during the previous six months. He weighed 144 pounds. Amnesia was extreme, and delusions of identity marked. He did not know his age, nor did he have a correct idea of time or plan. No weight chart that I have examined corresponds more nearly with one that might be made of the mental state than this. Starting with a patient whose mental powers had been very much broken, who had rapidly lost flesh, the ascent of the weight line has invariably been accompanied by improvement in memory and a lifting of the cloud of dementia. When the weight line has been horizontal, or nearly so, the mental condition has appeared stationary.

## No. 5.

Feb. 21.....	145 lbs.	March 13.....	162 lbs.
Feb. 27.....	153 "	March 19.....	162 "
March 6.....	162 "		

No. 5 \* is instructive, not only because a quick recovery occurred in connection with rapid increase in weight, but it is one of those cases not infrequently seen where if the delirium is not occasioned by narcotic drugs it disappears upon their withdrawal and the substitution of means to hasten elimination and to nourish the system. The patient, who had been under the care of a neurologist, was brought to the hospital in an ambulance. When admitted his pulse was ninety-four, weak, and dicrotic. His pupils, which were widely dilated, did not respond to light. His tongue was dry and furred, his lips were parched, and his teeth were covered with sordes.

\* A. B. has just passed through my hands. One month before admission he had pneumonia. For three weeks he had been delirious and wakeful, had refused food and lost flesh rapidly (fully fifty pounds, so his wife stated). His tongue was dry and furred, his pupils were moderately dilated, and did not respond to light. He slid down in bed, and replied to questions in a slow, rambling manner.

The evidences of excessive drugging being marked, no medicine was given, save a laxative. His skin was stimulated to action by bathing, friction, etc. Animal broths were freely given. He slept none the first night, two hours the second night, and ten hours the next, after which he had no delusions. He made a good recovery, and was discharged thirteen days after admission.

The wife of this patient felt that he had been over-medicated (he had three doctors — one a neurologist), and voluntarily brought me a copy of the seventeen prescriptions she had had filled, some over and over again. The druggist indicated those that had been regularly relied upon, by which it appeared that 960 grs. bromide potassium, 150 grs. chloral hydrate, 30 m. tr. belladonna, 15 m. tr. nux vomica, 10 m. tr. digitalis, had been given *daily*; in addition to the above, co. spts. ether, morphine, alone and combined with chloral and the bromides, sulfonal, iod. potassium, quinine, and strychnine had been administered irregularly. Blisters to the back of the neck had not been forgotten, as the prescriptions showed and a dirty ulcer proved.



His speech was thick and incoherent. He could not stand, and he was put to bed immediately. He had rapidly lost flesh. Two months previous to his admission he had fallen on the ice and struck the back of his head, but there appeared to be no connection between this accident and his insanity, which had lasted about a week. He had had leeches applied behind the ears, followed by a succession of blisters; and internally bromide of potassium, iodide of potassium, calomel, cannabis indica, hyoscyamus, chloral, bichloride, atropine, and morphia had been given.

The insomnia had not only not been relieved, but the patient had slept little or none under increasing doses of powerful narcotics.

How much food he had taken was hard to ascertain, but there was evidence that the amount was insignificant. All medicine of a sedative nature was withheld; three grains of calomel were given, and he got a free evacuation from it. He was sponged frequently, and egg-nog, chicken broth, and beef tea were given. Water was also liberally allowed. The first night he slept two hours, and when awake he was kept in bed by a nurse. Within twenty-four hours his tongue became moist and the delirium less active; but he slept none the second night. The following day, however, he got several short naps, and that night he slept six hours. He was given fully four quarts of milk, or its equivalent, every twenty-four hours, and on the third day he ate solid food. At this time his pupils were getting responsive, and he had only an occasional hallucination of sight, which he was able to correct. Four days after admission his mind was perfectly clear, and he was dressed and weighed, tipping the scales at 145 pounds. His mouth was now in good condition, his bowels continued regular, and indeed all his functions well performed. He was put upon a ferruginous tonic, and in six days he gained eight pounds, which was increased eight pounds the next week, reaching 162 pounds, where it remained a fortnight longer, when he was discharged.

## No. 6.

May 1, 1892.....	172 lbs.	May 22, 1892 .....	179 lbs.
May 8, 1892.....	174 "	May 26, 1892.....	180 "
May 15, 1892.....	179 "		

No. 6 is a prosperous farmer who was admitted on April 16, 1892. Two years previous he had la grippe, subsequent to which he was under par, having a constant sense of tire. Two months previous to admission he had been anxious and worried over church matters, had slept badly and lost flesh. When admitted he was maniacal,

and was brought to the hospital with his hands strapped. He was placed upon a generous diet and his bodily functions attended to. Though he almost immediately showed improvement physically, he was not able to be taken to the scales for two weeks, when he weighed 172 pounds, evidently considerably more than when admitted. Tonic treatment was kept up, and in another fortnight he weighed 179 pounds, at which time he was rapidly regaining his equilibrium. He was discharged recovered May 26th; he weighed 180 pounds. His condition has remained satisfactory.

## No. 7.

June 5, 1893.....	123 lbs.	Oct. 30, 1893.....	126 lbs.
June 19, 1893.....	125 "	Nov. 13, 1893.....	132 "
July 3, 1893.....	123 "	Nov. 20, 1893.....	136 "
July 31, 1893.....	112 "	Dec. 11, 1893.....	137 "
Aug. 28, 1893.....	112 "	Jan. 1, 1894.....	133 "
Sept. 4, 1893.....	109 "	Jan. 22, 1894.....	137 "
Sept. 18, 1893.....	114 "	Jan. 29, 1894.....	143 "
Oct. 9, 1893.....	125 "	Feb. 12, 1894.....	145 "

No. 7, a mechanic, was admitted to the hospital on May 30, 1893, suffering from melancholia, which had been active for the space of eight months. He had delusions of contamination and refused to eat. He was fed mechanically until September 17th. His weight line was steadily downward until early in September, when he began to eat fruit, at which time there were observed signs of mental improvement. He would smile and occasionally speak. After he took food voluntarily, and the use of the tube was stopped, there was rapid improvement, not only mentally but also physically; for a time he gained a pound a day. In December he had influenza, when his weight fell off four pounds, but there were no unusual mental symptoms. He continued to get fatter and made a good recovery. In five months he gained thirty-six pounds.

## No. 8.

June 23, 1893.....	130 lbs.	Sept. 25, 1893.....	153 lbs.
July 10, 1893.....	135 "	Nov. 1, 1893.....	162 "
Aug. 7, 1893.....	140 "	Dec. 25, 1893.....	163½ "
Aug. 14, 1893.....	145 "	Jan. 29, 1894.....	162 "
Sept. 4, 1893.....	150 "	Feb. 5, 1894.....	161 "

No. 8 represents a patient sixty-five years of age, admitted on June 23, 1893, with melancholia, weighing 130 pounds. There was a previous history of overwork, worry, and neurasthenia. Improvement was prompt and corresponded to the bettered nutrition. He was well in six months after admission, but was permitted to make

his quarters at the hospital while looking for a situation as accountant. There was a gain of  $33\frac{1}{2}$  pounds in weight.

## No. 9.

July 24, 1893.....	109 lbs.	Oct. 23, 1893.....	127 lbs.
July 31, 1893.....	115 "	Oct. 30, 1893.....	131 "
Aug. 7, 1893.....	116 "	Nov. 6, 1893.....	134 "
Aug. 14, 1893.....	120 "	Nov. 13, 1893.....	137 "
Aug. 28, 1893.....	121 "	Nov. 20, 1893.....	140 "
Sept. 11, 1893.....	117 "	Dec. 18, 1893.....	145 "
Oct. 18, 1893.....	125 "	Jan. 1, 1894.....	145 "

No. 9, a law student, was admitted on July 8, 1893, in a condition of acute maniacal excitement of one month's duration, which had followed a period of depression. He was very disorderly; his mouth was parched, breath hot and offensive, and voluntary attention was weakened.

Stimulants were given, with sulfonal at night. He took food readily, and symptoms of exhaustion soon subsided. On July 24th he weighed 109 pounds. He passed through a very noisy and active excitement. In August he bruised his left fore-finger, by pounding his hand against the wall, and it was necessary to amputate the same, which Dr. T. G. Morton, one of the surgeons of the hospital, did on September 24th. Except during the most painful period incident to this accident he steadily put on flesh, and early in October he began to have, first hours, and then days when his mania was not so great. When he had gained about twenty pounds in weight, his pupils became less widely dilated, and from this time on he improved rapidly in mind. During most of his excitement he was unwilling to take medicine, although remedies to regulate cerebral circulation were administered. As soon as he was well enough to cooperate, iron and arsenic were prescribed.

He had no delusions during the last two months of his hospital residence, and he slept from ten to fourteen hours every night. For a month before his discharge he frequently visited his home, sometimes remaining a day or more. In every respect the termination of his disorder was satisfactory. He gained thirty-six pounds.

## No. 10.

Aug. 7, 1893.....	136 lbs.	Nov. 17, 1893, ate meat....	
Sept. 4, 1893.....	145 "	Nov. 20, 1893.....	166 lbs.
Sept. 18, 1893.....	146 "	Dec. 4, 1893.....	167 "
Sept. 25, 1893.....	140 "	Dec. 18, 1893.....	168 "
Oct. 9, 1893.....	156 "	Jan. 8, 1894.....	169 "
Oct. 23, 1893.....	160 "	Jan. 22, 1894.....	171 "
Nov. 13, 1893.....	165 "	Feb. 12, 1894.....	172 "

No. 10, a young business man, was admitted July 23, 1893. One uncle has been insane and one brother drinks periodically. A year previous to his admission he had rheumatism, which was followed by depression with hallucinations of hearing. He spent a few weeks in Canada, and made some slight improvement. In April, 1893, hallucinations of hearing returned and he was taken on a trip to the Far West, which did not improve his condition; indeed, all his symptoms grew worse, he had many delusions, suffered distressing hallucinations and steadily lost weight. Upon admission he was dominated by the "voice of God," was unwilling to go out of doors, and would eat no meat; he was very anæmic and his hands were tremulous. His tendon reflexes were normal. Iron and arsenic were given and he was induced to eat fat-producing food; it was not, however, until the middle of November, 1893, that his delusions permitted him to take animal food. He ate many bananas. His general condition promptly improved; yet one week in September when he was very restless and agitated under his hallucinations and the delusions growing out of them, he lost six pounds in weight. He worked in the gymnasium and spent much time in the open air. After gaining thirty-five pounds, his hallucinations disappeared and he became tranquil and co-operative. His melancholy is lifting, and as I write he is a ruddy athletic man, weighing 172 pounds, a gain of forty-two pounds in seven months.

## No. 11.

Oct. 26, 1892.....	160 lbs.	June 26, 1893.....	190 lbs.
Nov. 28, 1892.....	165 "	July 15, 1893.....	194 "
Jan. 1, 1893.....	160 "	Aug. 4, 1893.....	200 "
Feb. 6, 1893.....	175 "	Sept. 10, 1893.....	200 "
March 13, 1893....	181 "	Nov. 15, 1893.....	200 "
April 1, 1893.....	185 "	Dec. 15, 1893.....	196 "
May 22, 1893.....	187 "	Jan. 24, 1894.....	200 "

No. 11, a milk dealer, fifty-three years of age, weighed when admitted 160 pounds. Six months previous he had acute Bright's disease and was confined to the bed four weeks, following which he was exhausted and easily tired. For the space of three months he had been depressed and more recently suicidal. He was cheerful in a grim sort of a way and seemed to regard his apprehensions as matters to joke about. He imagined for many months that his head was going to be cut off, that those about would be hung or shot, or would meet some other violent death in the near future.

He was placed upon tonics and attention given to his food and

to his excretory functions. He worked in the gymnasium and spent many hours daily in the sunlight, the endeavor being of course to divert his attention from himself as well as to improve his general health.

He responded physically and in ten months had gained forty pounds. In the late autumn of 1893 there was a remission in his delusions, and he slept soundly; then his condition was variable for a time; some days he was full of delusive ideas, while others he was rational and calm. He paid short visits to his home, and convalescence seemed hastened thereby. He was finally discharged well on January 24, 1894. It is of interest to know that while this patient gained satisfactorily in weight, and was strong and ruddy for many months before real improvement in his mental condition took place, and that while the number of red corpuscles was in excess of what is considered normal, the percentage of hæmoglobin remained low until near his discharge. The same condition obtained in other protracted cases, some of which are not included in the accompanying tabulation, and it is to be hoped that in the examination of the blood we may have pointed out to us the indicated treatment in cases which now give so much trouble or become chronic.

In the cases referred to above the average duration of hospital treatment in those recovered, nine in number, was eight months and ten days, the shortest period being one month and two days, while one remained twenty months and twenty-seven days. In every instance it would seem from the history of the case and knowledge of the progress of the disorder as though insanity would not have occurred had appropriate treatment been begun when the first departure was made from the normal state physically, and, that opportunity having passed, the duration of the illness would have been shorter had greater attention been paid to metabolism before hospital aid was resorted to.

The average gain of weight was twenty-eight and a half pounds; of the recovered cases twenty-six pounds, which is near the average of a larger series of cases in which these are included.

There is no doubt but that our maniacal patients pass through their attack with less violent demonstration than was the case not many years ago, and that mechanical restraint is now seldom resorted to except for surgical reasons. Can the form of disease have changed in a decade? Is it not more probable that the lessening in the intensity of excitement is due to the greater attention paid to food in institutions for the insane?

While there may be other reasons for the apparent contentment and calmness of the English and Scotch asylum patients, the full diet of the people and the good table furnished in the establishments for the insane there should, I believe, be given much of the credit.

Cross the channel, and in Irish asylums one will witness a Babel never equaled in our hospitals even in the olden days.

If further illustrations are necessary to show the tranquilizing effects of food, one need only study the lower animals (who also set us good examples in sanitation), for they lie down and sleep after filling their stomachs. It is the fat ox that chews the cud of contentment, while the lean one bellows and breaks down the fences.

The lesson which it seems these tabulations and histories teach, is that as mental disorder is usually attended with malnutrition, the prophylactic is in maintaining the system in the best possible condition; and in treating acute insanity, nutrition should be improved in the most prompt manner. It is of course not claimed that all will get well, for some patients are inevitably incurable, but it is believed that class which furnishes the recoveries will supply a greater number if the bodily functions are regulated and maintained at their highest degree of excellence.



## CLINICAL REPORT OF CASE OF TRAUMATIC INJURY WITH UNUSUAL EFFECTS ON THE NERVOUS SYSTEM.

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SERVICE OF DR. RICHARD DEWEY,  
Attending Neurologist, St. Elizabeth Hospital, Chicago.  
Reported by A. M. HARVEY, M. D., House Surgeon.

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*Fall of boy seventeen years old from high wagon-seat to pavement. No demonstrable physical injury. One-sided muscular spasm and rigidity, inability to speak or perform certain movements, lasting some hours, consciousness only slightly impaired.*

O. W., aged seventeen, teamster, well-nourished, and of large and muscular frame and build for his age, was brought to St. Elizabeth Hospital in police ambulance, August 10, 1894. Had been driving a wagon loaded with seventy empty barrels, which was struck by grip-car of cable train and overturned. Patient fell from the high seat among barrels. He extricated himself and "staggered" to the sidewalk (as described by bystanders), and was taken to a drug store. Here (as was afterward learned) his actions were peculiar. He was partially conscious and in a state of excitement or terror, and did not seem to know what he was about; he grabbed or snapped at his clothing with his teeth, while held by the bystanders.

When admitted at the hospital he was unable to stand; he was bent forward and sidewise toward the left, and seemed to be suffering intense pain in chest and hypochondrium. An examination revealed no serious physical injury. Patient did not speak, but showed consciousness. When asked name, could not tell or speak in answer to any question, but made a motion as if he wanted to write; took pencil and wrote given name, "Otto," quite legibly; the surname was not written so well, hand was tremulous and jerky.

As there seemed to be some brain or nervous complication Doctor Dewey was requested to examine the case. His examination, a few hours later, developed the following conditions:

The patient lay on his left side, with his left arm rigidly held against trunk, and forearm and hand over præcordial region; every attempt to move left arm was violently resisted; the left leg was also firmly flexed at the knee and thigh, and the head forcibly rotated to left, and if turned to right by force was quickly rotated back. There was apparent intense hyperæsthesia of surface, more

marked on left side, and every attempt at examination or change of position produced great agitation and strong resistance, and the pulse and respiration would increase in frequency. The heart was irregular in its action, varying from 88 to 104 per minute, and when any attempt at examination was made, respiration would increase to 44 per minute. The temperature was 101.

By the exercise of a good deal of force the eyes were held open, and it was found that the right pupil was considerably dilated and responded normally to light, while left pupil responded more slowly to light and was smaller than right.

As the patient realized more or less of what was said and done, he was asked to open his eyes, and evidently made an effort to do so. The superciliary muscle was vigorously contracted, but the spasm of orbicularis (or paresis of levator) could not be overcome so as to raise lids. The patient was asked to speak, and evidently tried to do so, but could not; he could open and close mouth and protrude tongue, by great effort, when asked to do so, about one inch. The tongue deviated quite noticeably to the left each time it was protruded. The patient was able to swallow, and took two or three teaspoonfuls of water.

Patient was asked to put hand to head, and very slowly and with much effort raised right hand to head. He was asked to put his hand where he had the most pain, and indicated with left hand all of left side from thorax to pelvis, moving hand slowly and painfully.

Patient was given thirty grains of potassium bromide, and in about three-quarters of an hour was found resting quite easily, with head turned to the right. Next morning the patient was able to speak and, though weak and unsteady, had some control of left side of body, and gradual improvement continued.

Additional facts about this patient are: Parents are German; his father is a healthy man, aged forty-nine; mother, also forty-nine, is "very nervous," unable to perform her household duties; she has borne eleven children — nine are living and healthy, two died very young.

Six days after the injury patient held left elbow stiff, and sat and stood bent forward and to left, complained of asthenopia, had much exaggerated left knee jerk, tongue was protruded straight, much soreness of left side, especially over heart and over rear axillary fold, taking long breath was painful, pulse seventy-two, slept and ate well.

Eighteen days after injury, still kept bed at times, pain over

præcordial region and back of left shoulder and arm, persistent; tongue deviated slightly to left, knee jerk about normal, a little slow. Had a "weak" attack after dinner; came in from garden and went to bed; legs were weak; it was very hard to get up steps, as has been the case all the time. Sleep, appetite, and bowels normal.

Twenty-three days after injury: Pulse eighty-eight; heart excitable; patient complains of palpitation after meals and at night; movements stiff and clumsy; tremor and unsteadiness of hands in executing any movement. Physical functions normally performed. States when going to bed first, heart is excitable and throbs unduly; can not walk well with eyes closed; prickling sensations in limbs; face stolid, speech "thick," and articulation indistinct. Pains, as above mentioned, persist.

Thirty days after accident, speech and gait still marked by the same clumsiness. Brother, who came with patient to Dr. Dewey's office, states patient has always been about as he is now, and does not see any marked difference now from what was his condition before the accident. It seems uncertain whether there is no change or whether brother, like most unskilled observers, fails to note difference, as is often the case with relatives of those affected with neuroses.

October 12th, nine weeks after accident: Patient now appears in normal condition. His attack seems to have been a functional neurosis, almost *sui generis*, considering his age, sex, and constitution, but belonging with the extensive class of hysterical phenomena, and in part resulting from cortical irritation.

The patient possibly inherited a hysterical diathesis or tendency from the mother, which was called into activity by the severity of the physical shock and the fright and mental strain of so violent an accident.

## ABSTRACTS AND EXTRACTS.

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**THE MUSICAL FACULTY IN CEREBRAL DISEASES.**—Dr. W. W. Ireland, *Jour. of Ment. Sci.*, July, has an interesting paper on the musical faculty in mental diseases, in which he discusses literature and offers the following conclusions:

“That the area of the brain, through which musical feeling and activity are realized, is not confined to the convolutions of the left hemisphere, implicated in motor and sensory aphasia. It seems to me that the musical faculty must be exercised on both sides of the encephalon. Whether its activity depends upon a circumscribed portion of the brain seems doubtful. It would be desirable to have observations to solve the question whether diseases of the right hemisphere may cause loss of the power of singing, or following or reproducing melodies. I am inclined to think that this power could only be extinguished by lesions to both sides of the brain at once. It also seems to me that the musical faculty may still survive after extensive brain diseases, which have more deeply impaired the more complex mental faculties.”

Doctor Ireland's paper is immediately followed by another by Dr. Richard Legge on the musical faculty in insanity, in which he states his opinion, derived from observation, as to the relation of the musical faculty in the various types of insanity. He disagrees to some extent from Doctor Ireland in thinking that in dementia the finer musical sense fails even more quickly than the other æsthetic feelings. In this we should agree with Doctor Ireland rather than Doctor Legge, but, after all, the individual variations are so numerous that perhaps any general statements are unwarranted. We have seen a musical æstheticism survive nearly all the other finer feelings in a largely demented patient, who, according to good judges, was himself a most excellent musician, but who, after a trial, could not be utilized in a hospital orchestra because his characteristic artistic hyper-sensibility could not endure the style of music and execution that was the best the other performers could attempt. The survival of the musical faculty is so notable in many demented patients that it perhaps makes an undue impression; but, after all, the proposition of Doctor Ireland seems most in accordance with our own observation.

As Doctor Legge says, the relation of the musical faculty to idiocy is one of the most interesting facts in this discussion, and here it would seem that valuable contributions may be expected, both psychological and pathological, from the institutions for idiots and weak-minded individuals.

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**CHRONIC SENSORY INSANITY AND ITS CLINICAL STATUS.**—Prof. L. Bianchi, XIIth Intern. Congr., Rome (rep. in *Annali di Neurologia*, XII, 1, and 2, p. 137).

From the successive publications of Westphal (1876), Meynert (1875, 1881, and 1891), Fritsch (1880), Mayser (1885), Wille (1888), and of Krafft-Ebing,

Schuele, Forelle, Magnan, Legrain, and Rosenbach (1891), we have already a good knowledge of acute sensorial delirium and of *paranoia acuta*, with which it has been confused.

In this form of insanity the hallucinations open the scene and the clinical picture varies in different cases. Sometimes the hallucinations are not repeated after they have led to some serious performance (automutilation). In others they leave a more or less stuporous condition, varied by rare or frequent hallucinatory episodes. Again they give rise immediately, without any discontinuity, to a systematized delirium that assumes all the character of *paranoia*, or to a state of subjective concentration with later *paranoiac* delusions. In still other cases, finally, the hallucinations chronically repeat themselves in the same fashion (homologous or similar hallucinations), but the individual does not give way to them and remains sane till (after years) *paranoia* is established, or with acute episodes, the mental vigor gradually fails (consecutive dementia).

The following principal groups can be recognized:

1. This group is made up of those cases in which one single hallucination or a single group of them, sometimes of a hypnagogic character, cause a profound disturbance of all the cortical functions, like a sort of shock, extending either to simple obtusion or to profound stuporous amentia. The hallucinations may or may not be repeated. Impulsions are frequent. Later, a systematized insanity develops.

2. The second group is made up of those cases in which the hallucinations have given rise in a brief space of time to the organization of an insanity that has all the signs of *paranoia* (in the sense used by Snell), from which it is distinguishable by its clearly hallucinatory origin, by its often lacking a degenerative basis, and by its relative curability.

3. This third group is represented by those cases in which the hallucinations continually recur always the same, but the subject does not yield to them till after a longer or shorter period. In these cases there is either a late appearing systematized insanity, or there are attacks of acute sensorial delirium that end in destruction of the psychic personality (consecutive dementia).

4. The fourth group consists of those cases in which a primary acute hallucinatory stage gives rise to a condition of *aboulia*, interrupted by impulsions that appear suddenly, with the personality, almost wholly reintegrated for the time.

Acute dementia, especially in young people, and many stuporous states are not to be considered as the result of hallucinations, and represent only one symptom of the disease that in its completeness is here called hallucinatory insanity.

*Paranoia* may be classed in two groups, one including those cases in which the systematized delusions originate from a hallucinatory (sensorial) insanity, acute or chronic, and which therefore fall under the clinical head of sensorial insanity; the other in which the delusions evolve primarily, with or without hallucinations, and thus form the type of *paranoia vera* (as defined by Snell).

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ONEIRIC HALLUCINATIONS.—M. Regis, at the session of the Congress of French alienists at Clermont Ferrand, August 10 (rep. in *Le Progrès Méd.*).

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called attention to the clinical and historical evidences of this type of hallucinations in the regicides. He considered them, together with the psychomotor hallucinations, with which they are generally associated, as pathognomonic of mystical delusions in the degenerates. He brought up as instances the cases of Ravaillac and Jacques Clément, and compared them with the mystic insane homicides of the present time.

**THE FUNCTIONS OF RELATION IN DEMENTIA.**—Bernardi and Perugia, VIIIth Congress of Italian Freniatrial Society, Rome, *Rivista Sperimentale di Freniatria*, XXII, p. 67, reported a systematic study of the varied forms of sensibility and motility in demented patients (excluding epileptic, pellagrous, and paralytic dementia), undertaken with the idea of determining as accurately as the condition of the patients permitted, whether the mental decay was accompanied with any special alterations of the functions of the life of relation. Eighty patients were examined, fifty-four men and twenty-six women. In eighteen the dementia was consecutive to mania, in twenty-two to melancholia, in six to periodic insanity, in nine to alcoholic disorder, in six to paranoia, in one to sensorial insanity, and in five to psychopathic forms not very well defined. Lastly, there were ten cases of hebephrenia, and three of senile dementia.

As regards the degree of dementia, it was profound in forty-seven, less so in thirty-three. The duration from the first symptoms of mental weakness was over ten years in more than half of the patients.

The authors commenced with the study of the specific cutaneous sensibility (general tactile sensibility, sense of location of stimulants, baric and thermic sensibility) of the gustatory, olfactory, visual senses, passing then to those of general organic sensibility (dolorific, farado-cutaneous sensibilities, as much for minimum perception as for painful perception, muscular sense). In the motor functions they studied the voluntary motility, the electro-muscular contractility, both to the faradic and the galvanic currents, and the reflex movements.

The principal results they obtained were as follows:

1. A certain degree of bilateral diminution of the dolorific sensibility.
2. A marked bilateral diminution of electric dolorific sensibility.
3. The existence of multiple parakineses (tremor of the tongue, lips, and hands) and of hypokinesia (deficiency of muscular tone of one-half of the face).
4. Degenerative alterations of the formula of galvanic contractility by direct and indirect exertion of the muscles.
5. Weakness and disappearance of the cutaneous reflexes.
6. Exaggeration of the tendon reflexes.

**AMNESIA RETROGRADA PROGRESSIVA, ANTEROGRADA CONTINUA.**—Sciannina, *Rivista Sperimentale*, XXII, p. 177, reports a case of defective memory in a patient, following typhoid fever, from which he deduces the following conclusions:

1. There is a form of amnesia, beginning during an infectious febrile disorder, that is progressively retrograde.



2. It is also continuously anterograde on account not only of a disturbance of the faculty of evocation, but also of that of the conservation of mental imageries.

3. It is accompanied with fixed sub-conscious ideas, with obsession and anxiety.

4. It is in no way connected with the hysterical diathesis, and has no *raison d'être* in alcoholism or trauma.

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IMPULSIONS, ESPECIALLY IN THEIR RELATIONS TO CRIME.—The following are the conclusions of a recent memoir on this subject by M. Bourdin (Paris, 1894), as given by M. Moreau (de Tours) in the *Revue Internat. de Bibliogr. Méd.*, August 10th:

1. An impulsion is a mode of cerebral activity that irresistibly causes a more or less complex movement or act.

2. It is quite distinct from an obsession, that is cause; the impulsion is the effect. The impulsion is never *tasponée*? (sic); lacking an obsession it is preceded by some other conscious or unconscious mental phenomenon; it does not involve consciousness, or consequently the memory, except by the act it has caused. The consciousness of an impulsion is in that of the consecutive act.

3. An impulsion, as a psychic phenomenon, is inseparable from the action it causes, and can not be conceived of apart from it. The impulsion causes the act, as the obsession produces the impulsion.

4. The type of every action, psychological or pathological, is reflex; to make even a voluntary act, it is only necessary to modify the reflex.

5. The impulsion is not assimilable to a reflex, because it has a psychic origin. The true cerebral reflex is the obsession.

6. Impulsions exist in a rudimentary state in cord and medulla, such are the convulsive tics, more or less coördinated, very frequent in the insane.

7. When criminal, impulsions take on various forms; sometimes they are only apparently impulsive, and the acts are really due to a delirium, a hallucination, etc. The true impulsion is a convulsion of the will, a disease of volition, not of ideation.

8. The most perfect impulsion is that of the degenerate, when it is preceded by an obsession. The sudden, unreflecting act of the moral lunatic is also an impulsion, but is less complete. Degenerate criminals from impulsion are relatively frequent, such are pyromaniacs, kleptomaniacs, etc.

9. In the epileptic the impulsion is essentially unconscious; the will may be considered as less diseased than in the degenerate. Criminal impulsions are the rule in epilepsy, and this fact is as much due to the unconsciousness of the act as to any special character of the patient.

10. We meet with still other impulsions in alcoholics, hysterical, and hypnotized persons — on the lower steps of the ladder of mental degeneracy, in imbeciles and idiots — in demented (general paralytics, etc.), but here one is on more uncertain ground, the crime is often unconnected with the impulsion. This distinction will be important in a medico-legal point of view.

11. Impulsions do not exist in the delusional insane, in melancholiacs, and persecuting cases, for example. The criminal acts they commit on them-

selves and others are the result of their delusions; it is the motive of the acts that is affected; the will only carries out the desires of the diseased imagination; ideation, not volition, is affected; there is, therefore, no impulsion, but an impulsive act, or a pseudo-impulsion.

12. The diagnosis of true and false impulsions, of capital importance psychologically, is not less so in legal medicine, especially when the act is not the result of a confirmed delusion. Likewise the diagnosis must be made of the morbid variety to which the criminal impulsion belongs; when we have to do with conscious and reasoning degenerates the question presents serious difficulties.

13. From a medico-legal point of view the responsibility of the subject of true impulsions is evidently *null*, but this is not absolutely true from a psychological point of view, since the will may be diseased without being absolutely gone, and the little that remains involves a little rudiment of responsibility, too little though, it is true, to fix culpability. The true type of irresponsibility is that due to a disorder of ideation, and consequently is found in delusional cases. It is in the intermediate forms that responsibility is most open to question, as in hysteria, certain forms of alcoholism, imbecility, etc., and we are justified in admitting for these only an attenuation of responsibility. As regards the responsibility of the false impulsive case, whose criminal act is due only to a perversion of instincts, to a vicious education, we hold it remains complete, and there can be only a question of extenuating circumstances. The final aim of this work is to define and limit in a definite fashion what we may understand by "impulsion." The two motives of action are too often confused, the impulsion due to obsession or otherwise, and that which the author calls the impulsive act, the result of a passion movement from which reason is not at all excluded. This is a distinction that at first seems subtle, but it is of great practical importance, since it permits us to fix on a correct basis the exact degree of a criminal responsibility.

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**POLYNEURITIC PSYCHOSES**—The following is the substance of an abstract of a paper by Colella, and read before the Medical Congress at Rome, and reported in the *Rivista Sperimentale*, XX, p. 269. The first part of the paper appears in full in the *Annali di Neurologia*, XII, parts 1 and 2, and will be completed in a subsequent issue.

In some intoxications, notably chronic alcoholic intoxications, as well as in the convalescence from infectious disorders, disturbances develop in the psychic sphere, associated with multiple neuritis. This neuro-psychopathic syndrome indicates that the peripheral nerves and the cerebral substance are simultaneously affected, and it allows us to explain the origin of the mental disorder by the same morbid conditions that provoke the multiple neuritis. These are represented by the toxic or infectious agencies. But for such agencies to attack the nervous elements, it is needful that the ground should be prepared by other factors (heredity, neural, and psychopathic antecedents).

The psychic syndrome, independently of its combination with the phenomena of multiple neuritis, presents a typical form characterized by a peculiar mental state in which amnesia is predominant, and to which are ordinarily joined various degrees of disorder of consciousness and associa-

tion of ideas, and not infrequently delirium and agitation. It may be admitted that the complex of psychic symptoms chiefly depends upon functional disturbances of the associational system of fibres.

Parallel with the cerebral disorder appear the symptoms of multiple neuritis. The beginnings, the course, the duration, and the ending of polyneuritic psychosis are eminently variable.

The psychological diagnosis should also be a neuro-pathological one. In difficult cases it is always possible to discover some symptoms of amnesia and multiple neuritis. The polyneuritic insanity is met with almost always in connection with alcoholic intoxication. The prognosis depends upon the severity of the disease, in the conditions under which it has developed, and on its etiology; it is dubious but ordinarily not unfavorable. The therapeutics chiefly depend upon the etiology. Its pathological anatomy has been studied as yet only incompletely; the profound material alterations of the neuro-muscular arc ascertained without exception, or almost so, to the sub-acute and chronic forms of infectious and toxic disease.

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SIALORRHOEA IN THE INSANE.—The following are the conclusions of a memoir by Cristianini in the *Rivista Sperimentale di Freniatria*, XXII, July, 1894:

1. The saliva of the insane with sialorrhœa is of greater density than that of the same insane or sane persons without ptialism, is less fluid, more viscid, has a generally neutral reaction instead of an alkaline one, contains a less proportion and often lacks altogether sulpho-cyanide of potassium, and moreover has a greater amylolytic property. It presents also other characters, but too variable and inconstant and therefore unimportant, such as the amount of contained phosphates, etc.

2. It is a mixed saliva, coming from all the glands, parotid, sub-maxillary, and sub-lingual, but with characters showing greater functional activity of single glands, presenting the frequent neuter reaction, the turbidity, the behavior with mineral acids and with alcohol; the greater amylolytic power of the parotid saliva; the prevailing viscosity, the greater density, and the scarcity, even to complete absence of sulpho-cyanide of potassium of the sub-maxillary secretion; the great viscosity, the same poverty and lack of sulpho-cyanide, the abundance of mucus, of that of the sub-lingual.

3. The saliva has the physiological character of that due to excitation of the sympathetic, turbid, viscid, abounding in mucus, with a density and amylolytic power greater than the so-called cerebral saliva, or that due to excitation of the chorda tympani, which is limpid, transparent, watery, very fluid, with hardly any mucus, and with less density and amylolytic power.

4. As regards the genesis of the sialorrhœa of the insane, it therefore follows that the cerebral cortical irritation, due to the morbid processes of the psychosis and according to Tamburini, on the basis of experimental investigations, given as the primary cause of ptialism in the insane, is transmitted and excites the functional secretory activity, by means of the sympathetic and not by the chorda tympani, and not of any special one, but of all the salivary glands.

5. This predominance of the action of the sympathetic is supported also

by the fact that the usage of sulphate of atropine, which has been shown experimentally to paralyze the chorda tympani and thus suspending the secretion of its saliva, while that coming from stimulation of the sympathetic continues without modification, does not cause any diminution of the flow in the ptyalism of the insane. To make still more marked the prevailing action of the sympathetic, there were shown in five of our cases, together with the ptyalism two other vaso-motor symptoms of sympathetic origin, lachrymation and congestion of the face.

6. Finally the amylolytic power, so much superior in the saliva of the sialorrhœic insane to that of the same individuals or of sane persons without sialorrhœa, is explanatory of their good and easy digestion of bread, vegetables, and legumes, which these patients devour with their insatiable appetites.

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THE INFECTIOUS ORIGIN OF ACUTE DELIRIUM.—Bianchi, Rome Congress, *Rivista Sperimentale*, XX, p. 279, deduces the following from his clinical and experimental investigations:

(a.) There is a form of acute delirium that develops nearly always in hereditarily predisposed individuals, and follows a course like a disorder due to grave toxic infection, with a special physiognomy, a clinical syndrome almost always the same, in which, from the beginning to the end, we do not see the symptoms of any other mental disorder, and only occasionally those of some complicating somatic affection (pneumonia, severe diarrhœa), certainly secondary to the primary infection. This clinical form is not to be confounded with any other.

(b.) In these cases it is more than probable that we have a true infection, *sui generis*, due to the presence in the blood and tissues, of a special micro-organism.

(c.) That studied by the author is a bacillus, two or three times as long as broad, that has a tendency to unite in chains, is mobile, stains with the ordinary aniline colors, and by Gram's method, is non-sporific.

In gelatine the colonies, swimming in a nutritive fluid, have a flaky appearance. The culture in agar develops vigorously, as also in broth, which is made slightly turbid. Potato is not adapted for its development, the micro-organism does not grow on it, milk does not remain clotted. The development takes place between 16° and 40° centigrades, but the greatest vigor is between 30° and 37° centigrades.

(d.) All the other forms of acute delirium, described as such, are either phases of aggravation of the primary psychopathic form (mania, sensorial delirium, progressive paralysis), or are the expression of other intoxications, above all of alcohol; or are the consequence of the inoculation of the same infection that produces the primary and genuine acute delirium on ground occupied by other psychopathies, as future chemico-bacteriological research will show.

These cases, also, we may consider true primary acute delirium; but the author believes that we ought not to include under that name those symptomatic complexes, specially described by Schuele, which simulate the form of genuine acute delirium while they are really only grave episodes of their original mental disorder.

(e.) To the psycho-neuroses, the degenerative psychoses, and the traumatic psychoses may be added a chapter on the infectious psychoses.

**CARDIAC ANOMALIES IN CHRONIC INSANITY.**—Carl Stricker, *Virchow's Archiv*, XXXVI, p. 216, concludes from statistical studies that:

1. The frequency of anatomic-pathological cardiac alterations in the insane, studied by him at Dalldorf, is greater in males than in females.
2. This frequency increases with age.
3. The form of insanity has its influence on the frequency of the cardiac alterations.
4. I admit that chronic insanity causes alterations in the heart.

Heart alterations he found least frequent in organic insanity from tumor or syphilis, the greatest frequency in senile dement, and after them the paranoiacs and melancholiacs.

**CEREBRAL EDEMA.**—Geo. J. Preston, *Jour. of Nerv. and Ment. Dis.*, August, 1894, takes issue with Gowers and others who have repudiated the existence of the "serous apoplexy" of the older neurologists, and insists on the importance of cerebral oedema in certain cases. His conclusions are:

1. Cerebral oedema should receive recognition, both from the clinical and pathological standpoint.
2. Oedema of the brain follows the laws of oedema elsewhere in the body, with the important exception that these laws must of necessity be considerably modified by the anatomical arrangement of the lymph spaces of the brain and its membranes.
3. The effused serum may exert injurious mechanical pressure, and also offers occasion for toxic influence.
4. Cerebral oedema would be a much more common and serious affection, were it not for the freer communication which exists between the various lymph spaces, as emphasized by the decided symptoms produced when these cavities are isolated by inflammatory adhesions.

**THE LEUCOCYTES IN THE INSANE.**—Roncoroni (comm. prev.), *Archivio di Psichiatria, Scienze penali ed Antropologia Criminale*, XVIII, 1894, has studied the various forms of leucocytes in respect to their nuclei and eosinophile, basophile, or neutrophile granulations, according to Ehrlich's method, in fifteen paralytics (10 m. 5 f.); ten phrenastheniatics (5 m. and 5 f.); twelve epileptics (8 m. and 4 f.); and three delinquents, and compared them with the findings in ten normal individuals (5 m. and 5 f.). In each case he made four series of preparations, with haemotoxylin and eosine, with eosine, with methylene blue, and with Ehrlich's liquid for neutrophile leucocytes with eosinophile granulations that afforded any special interest. In general paralysis their condition varies according to the individual; frequently very scarce, they are rarely in the normal frequency, and in extremely agitated cases with tendency to violence the total number of leucocytes is increased from 8 per cent to 18 per cent, or in one instance 25 per cent. In pure cretinism of the first or second degree (with goitre, connective tissue hypertrophy, numerous rughe) great obtuseness of intelligence, prognathism, etc.)



the eosinophile leucocytes were increased from 6 to 10 per cent, or even 20 per cent. In idiocy, on the other hand, and in the sporadic forms of phrenasthenia, and in microcephaly the number of eosinophile leucocytes was normal. In epileptic insanity the eosinophile leucocytes are often diminished. In the three criminals they were diminished in two, and abundant in one.

MOTOR VERBAL HALLUCINATIONS IN A GENERAL PARETIC.—M. P. Sérieux reports at length in the *Bulletin de la Société de Médecine Mentale de Belgique*, June, 1894, the case of a female paretic, aged thirty-nine, exhibiting the somatic and psychic symptoms of the disease, who suffered at first from delusions of persecution, inspired by auditory hallucinations, then, after a remission, from motor verbal hallucinations of a distressing nature, with symptoms of irritation of the masticatory centers—grinding of the teeth, etc., but without other forms of hallucination and especially no auditory ones. After a period of over a year of this, together with other symptoms, she passed into another stage with decided maniacal symptoms and various forms of motor verbal hallucinations, kinesthetic, visual, auditory, and gustatory, and finally succumbed to intercurrent pneumonia.

At the autopsy, together with other characteristic paretic findings, the cortical adhesions were found to extend from the apex of the frontal lobe on both sides via the third frontal to the foot of the ascending parietal convolutions. The temporal lobes were slightly affected, chiefly on the right where there were also slight adherences of the angular gyrus and vicinity.

The author analyzes the case and sums up its principal features as follows:

- (a.) The existence of motor verbal hallucinations in general paralysis.
- (b.) Direct association of motor verbal hallucinations with convulsions of the muscles of mastication.
- (c.) Appearance of these hallucinations during a remission, as an isolated symptom without other associated hallucinations, their prolonged duration (sixteen months); their constant reproductions.
- (d.) The part taken by these motor verbal hallucinations of a painful nature during the remission, in the delusions of persecutions with tendencies to systematization; secondary melancholic attacks.
- (e.) At the autopsy symmetrical lesions of meningo-encephalitis in the two hemispheres, involving in the sensory motor zone, only the foot of the third frontal (verbo-motor center) and the inferior extremity of the ascending frontal (containing, among others, the masticating center).
- (f.) Existence in general paralysis of not only isolated hallucinations of different senses, but also a condition of hallucinatory confusion (*hallucinatorische Verwirrtheit*) due to the multiplicity of the various hallucinations (auditory, visual, kinesthetic, gustatory).
- (g.) Extreme variety of the delirious attacks that may be met with in general paralysis; the ones grafted on the paralytic dementia (maniacal and melancholic spells, grandiose and hypochondriacal ideas), the others provoked by motor verbal hallucinations (delusions of persecution) or by the confused-totality of hallucinations of all the senses (state of confusion having some analogy with acute hallucinatory delirium).



**GENERAL PARALYSIS IN THE FEMALE.**—Idanow, *Ann. Med. Psych.*, XIX, 1894, p. 382. Idanow considers paresis more common in the female than it has been supposed, about one to three or four males. From the statistics of 104,000 insane in European asylums there were shown three women to every ten male paretics, or a proportion of three to one. The difference between this figure and the former estimates is partly due to the errors of former observers, and partly to the increasing frequency of paresis in women.

The etiology is the same in both sexes, and almost always syphilis is an antecedent; it can be demonstrated in about 68 per cent of female paretics. In rare cases it works as a direct cause, but generally as a predisposing factor. The utility of specific treatment is uncertain, but, if at all effective, it should be pushed, as we have in such cases to deal with tertiary syphilis.

The author notes especially the rarity of paresis in women of the higher classes.

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**GENERAL PARALYSIS AND CHOREA.**—At the Congress of French alienists, August 10th (*Progr. Méd.*, August 18th), Messrs. Vallon and Marie reported three observations, in two of which the occurrence of Sydenham's chorea was under such conditions as to suggest the inquiry whether it was not an early symptom of another condition—periencephalitis. As in the case of the observation in recent times of the co-existence of periencephalitis with the symptoms of various neuroses (hysteria, neurasthenia, Basedow's disease), it seemed to be more than a mere coincidence; it appeared like an attenuated motor equivalent at the period of functional dynamism of the process, at once psychic and motor, rather more profound than in confirmed general paralysis developed subsequently in the same patients. In the first case the paretic had had many attacks of chorea, from infancy up to the beginning of his paresis at thirty-three. In the second case the paretic symptoms only partially effaced the choreic ones. In the third case the choreic movements were rhythmic or localized in a member in the form of paroxysmal attacks, not without some analogy with the movements and contractions of Jacksonian epilepsy.

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**GENERAL PARESIS BEGINNING AS TABES.**—At the same session M. Joffroy reported a case of paresis apparently beginning as tabes. He showed a series of anatomical preparations of the chord in this patient, showing the undeniable appearance of a sclerosis of the posterior columns, and especially the lateral columns, with a special diffuse meningitis and disseminated endarteritis, without any noticeable alteration of the nerve roots; but the close examination of the sections showed that we have not here a genuine tabes, but a sort of simulation of the primary typical sclerosis of the posterior columns by a posterior meningitis, causing an incomplete and secondary sclerosis of the columns of gall up to the base of the posterior commissure. The clinical resemblance to tabes in the beginning is striking, then we have general paralysis, beginning by commissural meningitis.

In a former recent communication to one of the Paris societies, M. Joffroy mentioned the clinical fact of paresis beginning in some cases with the symptoms of tabes (ataxia, etc.), which disappear when the developed

paresis manifests itself. This is a feature not usually mentioned in text-books, but which was remarked by Doctor Bannister in a discussion in the Chicago Medical Society in February of this year.—*Chicago Med. Recorder*, March, 1894.

**TREPANATION OF THE CRANIUM.**—At the International Congress of Rome (An. in *Ann. di Neurologia*, XII, p. 143), M. Lucas Champonniere presented the report of the results of sixty-four operations of trephining of the skull. Of these, ten were performed shortly after the causal injury and gave fair results—cure in seven, death in three cases. These last were already almost in *articulo mortis* at the time of the operation.

In fifty-four other cases for non-traumatic lesions, seven died, five of whom were in a very serious, almost fatal, condition; one was a case of enormous cerebral tumor, and the other one of diffuse periencephalitis with Jacksonian epilepsy.

The fifty-four operations were as follows: Epilepsia vera, 14 cases; Jacksonian epilepsy, 12 cases; traumatic epilepsy, 6; various cerebral disorders, vertigos, pains, tumors, paralysis, etc., 22 cases.

Trephining for essential epilepsy has given rather better results than are generally reported. In some cases an apparent cure, in one, lasting two years already. In eleven there were various degrees of improvement, in one no noticeable result, and in one other a brief attack of insanity a few weeks after the operation.

In three cases of traumatic epilepsy only did the author have good results, no deaths.

Partial epilepsy, twelve cases, six deaths, did not give the results generally claimed for the operation. As regards pathogenesis of this type, in cases with paralysis there were extensive lesions of the centers, such as tumors, hemorrhage, meningitis, etc.

The results in the various cases of cerebral disorder, comprising twenty-two cases and one death, offered some interesting conclusions.

The results were better when pain was the chief indication for the operation; the same as to vertiginous phenomena. Monoplegia was also a good indication.

The one death occurred in a case of cerebral hemorrhage with incomplete monoplegia, and almost a comatose condition.

The lesions in the cases that best met the hopes of the operator were one case of limited cerebral hemorrhage, one of syphilitic lesion, and those especially of encephalitis superior of various origin.

The cases of periencephalitis also, dependent on a more or less ancient traumatism, and sometimes of slight degree, seems to form a good field for surgical intervention. The author has thus produced a cure or notable amelioration in cases that seemed incurable or necessarily fatal.

Cerebral surgery, therefore, has a good effect, not only in focal lesions, but one still more potent in relieving cerebral compression. We should intervene early therefore in diffuse lesions following cranial traumatism, and especially in non-traumatic cases of increased intracranial pressure (epilepsy, periencephalitis, etc.).

**THE CORTICAL GENESIS OF EPILEPSY.**—At the same session Penta reported the results of experiments on dogs, in which he removed the cortical motor zone and then used electrical irritation of the inferior traits, the medulla, the basal ganglia, the internal capsule, and the white substance without being able to produce convulsions. Cortical irritation, on the other hand, was almost always followed by convulsions that had all the characters of epilepsy. Only in a few special cases and in some very young animals did this fail.

These convulsions, when caused by irritation of the occipital lobe, were the more pronounced when the irritation was made near the ocular motor centers. The convulsions thus caused could be limited by completely removing the corresponding centers.

He concludes that these facts are additional proof of the cortical nature of epilepsy.

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**ATROPHY OF ONE LOBE OF THE CEREBELLUM.**—Amaldi, Internat. Congress, Rome, *Rivista Sperimentale*, XX, p. 292, reported a case of a woman, aged forty-seven, who died of a lingering disease, but without any special sensory or motor symptoms, in whom the left lobe of the cerebellum was found only about half its normal size. There were no evidences of disease, and the condition seemed due entirely to an arrest of development. The cerebellum seemed normal. A microscopic examination of the parts from the optic thalamus to the cord was made with the following results:

1. In the cord: (a) Atrophy of the column of Clarke on the left side, very apparent as far as half-way down the dorsal cord; (b) thinning of the anterior horn in the same tract of the dorsal and cervical cord; (c) rounding of the posterior outline of the lateral cord.

2. In the inferior cerebellar peduncle: (a) Diminution to one-fourth of the left restiform body; (b) reduction by one-half of the right olivary nucleus; (c) atrophy of the two nuclei of the posterior columns, very marked atrophy of the external portion of the nucleus of the cuneiform body, the part individualized by Blumenau as a formation analogous to Clarke's column; (d) some diminution of the right anterior exterior arcuate fibres; (e) on the side, greater development of the arciform nucleus all around the pyramid to that of the opposite side.

3. In the middle cerebellar peduncles, flattening and diminution of the right half of the pons, the right cerebral peduncle reduced one-fourth, with evident diminution of the bundles coming to it across the raphe from the atrophic hemisphere.

4. In the superior cerebellar peduncles, the left reduced by one-third, the right red nucleus correspondingly reduced.

The ciliary nucleus of the atrophied hemisphere was reduced by one-half, the nucleus of the tecta appeared diminished as a whole.

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**THE LIMBIC LOBE.**—At the XIth International Congress, Rome, in April last, section of psychiatry and neuropathology (rep. in *Annali di Neurologia*, XII, 1 and 2), Ch. Debierre read a communication on this subject. Broca had concluded that in the brain of the primates the limbic lobe of

the so-called osmotic animals, existed in a diminished and somewhat deformed condition. It comprehends, according to him, the convolutions of the corpus callosum, the hippocampus, and the olfactory lobe, much atrophied in the human species.

Debierre, on the other hand, shows, and in this he is supported by Waldinger, that these do not constitute the true limbic lobe in man. After rendering due homage to the anterior researches of Golgi and Giacomini, he demonstrated that, from a morphological, histological, and embryological point of view, the limbic lobe is like a sort of *rochetta*, the superior arc of which is represented by the tract of Lancisi (*stria tecta*), the inferior arc by the fascia dentata, and the handle by the olfactory lobe, that in man, as we are aware, is reduced to a simple bandelet and bulb. It is certain that the olfactory lobe on the one hand is connected with fascia dentata of the temporal lobes and on the other hand to the tract of Lancisi, or *stria tecta*, or *limbi medullares Lancisi*.

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THE CORPUS MAMMILLARE IN MAN.—De Sanctis, *Congr. Intern.*, Rome, 1894, (rep. in *Annali de Neurologia*, XII, p. 128). *Conclusions*, (1). There exist no relations between the lateral ganglion of the corpus mammillare and the *pedunculus corp. mammillaris* (tegmental fascia of Meynert).

2. The columnar fornix, excepting the group of small fasciae, that the author proposes to call "4 columnar fasciculus of Gudden," originates for the most part from the lateral ganglion and only in small part from the median ganglion of the corpus mammillare; from this ganglion, on the other hand, originates the complexus of the *bundle of Vicq d'Azyr* and the *tegmental fascia of Gudden*.

3. The medullar capsule of the corpus mammillare is in relation by its ventral portion exclusively with the columnar, and by its medial portion with the total of the bundle of Vicq d'Azyr, and with the tegmental fascia of Gudden in great part, and with the columnar to a slight extent.

4. The rete endomammillare is formed almost exclusively from the columnar. The divisional fibers between the two ganglia of the C. M. are dependent almost exclusively on the complex of the bundle of Vicq d'Azyr and the tegmental fascia of Gudden.

5. The fascia of Maharin (thus the author proposes to call the bundle first described by Maharin) has no relations with the fasciae of the columnar fornix.

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THE FUNCTIONS OF THE FRONTAL LOBES.—In a communication to the Rome International Medical Congress, March 30th, Professor Bianchi, after reviewing the theories and investigations of Hitzig, Ferrier, Munk, Horsley and others, gave his own views as to the functions of the frontal lobes. According to his idea, it is in this part of the brain that the sensory and motor functions of the other parts of the cortex are co-ordinated and arranged. The frontal lobes sum up, on the one hand, the products of the cortical neurones of sense and motility in order, and on the other all the emotional states accompanying the single perception, and from the fusion of these is born what he calls the psychic tone of the individual. Extirpation of the

frontal lobes causes disaggregation of the personality, the incapacity for the formation by series of groups of images and representations. With the disappearance of the organ of this physiological fusion we have that of the anatomico-physiological basis of judgment and criticism. The restlessness and motor incoherence of apes, whose frontal lobes had been removed, depend upon the resolution of the nervous wave provoked by the actual impressions, traversing the lesser psychomotor arcs, with the lack of previously accumulated psychic coefficients. Fear is the immediate effect of the psychic disaggregation; it is a defect of sensation of one's own personality, a defect of perception and judgment. Courage is based upon a knowledge of one's own power—on the rapid perception of the worth of the adversary, of the means of offense and defense, and on the more or less potent domination of certain sentiments.

In monkeys with extirpated frontal lobes none of this is observed. The impulsions as observed in certain sane or insane persons, idiots, and epileptics, must not be confounded with courage. Affection, friendship, recognition, sociability, are weakened or lost, while the appetites are increased beyond measure. The animals that were before tidy become filthy. The dementia extends also to sexual life. There is, in short, a dissolution of the psychic personality.

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THE NURSING STAFF IN ASYLUMS.—Doctor Menzies, senior assistant medical officer, Rainhill Asylum (*Journal of Mental Science*, July, 1894), treats of this subject. His article seems to have reference to infirmiry nurses rather than attendants for the able-bodied insane, and his observations evidently have reference only to female employées. He thinks it certain that ladies, as distinguished from the class of girls from which domestic servants are drawn, are kinder, more conscientious, and more susceptible of training, and that the only obstacle to their employment is the increased expense involved. The requirements he conceives to be as follows:

1. The minimum age of probationers should be raised to at least twenty-three years of age, preferably twenty-five or twenty-six.

2. The hours of duty must be curtailed, so that the average of working hours per diem should be 10.31 instead of 12.8, as at present. This he would accomplish by dividing the staff into three equal portions, and only having the entire force on duty from 9.35 A. M. to 2.30 P. M. The various portions of time off duty would be taken by the three divisions in rotation. He would also allow an entire day off duty once a fortnight, and an annual vacation of three weeks.

3. The nurse's food must be improved. He proposes "for breakfast, two kinds of fish or eggs, toast as well as bread, and tea, coffee, cocoa, and milk; for dinner always two courses, sometimes three, two kinds of meat, two vegetables, two kinds of pudding; and a like variety for supper."

4. A separate block must be provided for both nurses and attendants, large enough so that none shall be obliged to sleep on the wards, provided with day-rooms for various purposes, single rooms for senior nurses, and cubicles rather than associate dormitories for juniors. More provision should also be made for recreation than at present.



5. A complete course of training, extending over three years, must be provided.

He considers that these charges will involve an increase of something over 50 per cent over present rates, although, if the service became popular, no salary would be paid at first, a larger number would remain over three years, and so receive higher wages. He thinks it impossible to raise the standard until things are made more comfortable.

W. L. W.

AGES AND DEATH-RATES OF LUNATICS.—Chapman (*ibid.*) thinks that some light may be thrown on the question of the increase of insanity by a study of the condition of affairs in Herefordshire, in which the accumulation of the insane is greater than in any other county of England. The census of 1891 reported 336 insane to 100,000 of the population of England at large. The number known to the commissioners in lunacy, however, was only 302 per 100,000 of whom 272 were pauper lunatics, and 195 were supported in asylums. In Herefordshire, at the same time, there were known to the commission 460 pauper lunatics to 100,000, of whom 328 were maintained in asylums. This difference he attributes in part to the fact that Herefordshire has had a lunatic asylum longer than most other counties, but mainly to the large immigration from the county, which leaves behind those most prone to insanity, and drains off the younger and more capable members of their families, who would, in many cases, be able to care for them at home.

The age of the Hereford Asylum is higher, and their death-rate lower than the average in the country at large. According to the last report of the commissioners in lunacy, the mean age of patients resident in all county asylums was 45.7 years. The mean age of the patients in the Hereford Asylum in 1893 was 50.7. The death-rate for all asylums in 1890-91 was, for men, 127.0; for women, 83.8 per 1,000. For the Hereford Asylum, 75.8 and 50.6 respectively. These comparisons are worked out in detail and are illustrated by a number of tables and diagrams.

From these facts, he is disposed to attribute the apparent increase of insanity in the population at large to the increased longevity of the insane and a disposition to send a larger number of chronic and senile cases to asylums.

W. L. W.

INSANITY IN THE BARONY PARISH OF GLASGOW.—Carswell (*ibid.*) relates the experience of the above district in dealing with the increase in applications for admission to the parochial asylum. In 1889 two wards, one for each sex, were set apart in the Barnhill Parochial Hospital for the treatment of doubtful and temporary non-certified cases, and a medical officer was appointed to examine all cases and investigate all the circumstances bearing on the propriety of their admission, keeping a record of results. From a comparison of the four years in which this plan had been carried out with the four preceding years, it appeared that while the average number of applications per annum had risen from 247 to 334.25, the proportion admitted per 100,000 of population had decreased from 65.8 to 61.4. On the other hand, the number annually treated in the Barnhill observation wards averaged 29 per 100,000 of population. He concludes that there is no increase in



insanity in proportion to population, but an increase in the disposition of the public to take advantage of the facilities for treatment. W. L. W.

“RUNNING AMUCK.”—The Malay “amok,” as a peculiar, almost unique, form of racial psychosis, has attracted attention for many years past. In a recent number of the *Neurologisches Centralblatt* Doctor Rasch has a short article on the subject which, while it offers nothing fresh for consideration, directs attention to several interesting points in connection with the peculiar form of mental disturbance to which the name is applied. “Amok” only occurs in the Malay peninsula, and it is a condition which only affects the Malay race. Macassar, as Wallace points out, is the chief place of its occurrence, and one or two cases a month is not an unusual number. Its occurrence is usually preceded by some kind of emotional disturbance, and in some instances it seems to be connected with the influence of opium. The subject of it seizes his “kriss” and rushes into the street striking at, sometimes killing, every one he meets, man or woman, friend or foe, and the paroxysm not unfrequently ends with suicide, or at least the infliction of wounds by the patient on himself. The etiology of the condition is, as we have hinted, obscure. It may be as Wallace suggests, that it is really a resort to what appears to the savage to be a kind of honorable suicide on the part of a man who, for some reason, is plunged in sorrow or dejection, thinks himself wronged by society, or to whom, on account of misfortunes, life has come to be a burden. But it is strange that such a condition, which must be regarded as a transitory mania, should be confined to one particular race. The curious resemblance in some particulars of this condition to what is known as “pro-cursive epilepsy” can not but be noted by anyone who has observed the latter condition.—*The Lancet*, September 8, 1894. J. M. M.

ALLEGED INCREASE OF INSANITY IN ENGLAND AND WALES.—It is impossible to avoid a sense of disappointment at the forty-eighth report of the Lunacy Commissioners considered as a contribution to the study of that important problem—the alleged increase of insanity. Little attempt has been made in the report to utilize the useful facts bearing upon this problem, which were published last year in the report upon the census in 1891. Census statistics show that, of the total enumerated cases of insanity in England and Wales in 1871, 17.7 per cent were not officially known to the Lunacy Commissioners; that in 1881 this reserve of cases unknown to the commissioners had fallen to 13.5 per cent, and that in 1891 the proportion had further declined to 10.9 per cent. It naturally follows that the proportion of the total insane within the official cognizance of the Lunacy Commissioners increased in the twenty years, 1871–1891 from 82.3 per cent to 89.1 per cent. To this extent, at any rate, the increase in the figures dealt with by the commissioners does not in any real sense indicate an actual increase of insanity. It is true that the census returns show an increase in the proportion of the insane to the population at the successive censuses in 1871, 1881, and 1891, but they also show that while the increase in the ratio of enumerated insanity to the population was 7 per cent between 1871 and

1881, it fell to 3 per cent between 1881 and 1891. The fact, however, that the proportion of the insane to the population was larger in 1891 than it was in 1871 affords no conclusive proof of any increase in the occurring cases of insanity. The census report points out that, on the basis of the recovery and mortality statistics, published in the reports of the Lunacy Commissioners, it may be calculated that while the annual number of new cases per million of the population required to account for the increase of the enumerated insane between 1871 and 1881 was 689, the increase in enumerated insane between 1881 and 1891 only implied 661 new cases annually per million of population. It is thus shown that the annual proportion of new cases of insanity to the population was actually lower in 1881-91 than it had been in 1871-81, from which it may be safely inferred that the increase in the enumerated cases of existing insanity during the last intercensal period was merely the result of what had been called the accumulation of cases, mainly due to the increased longevity of the insane, through the steady decline of their death-rate. That this is a trustworthy explanation of the increase in the number of cases of existing insanity at the successive censuses in 1871, 1881, and 1891, is strongly corroborated by the following facts, also shown in the census tables. The proportion of insane to the population under the age of forty-five years was practically stationary during twenty years; it was 2.24 per 1,000 in 1871, 2.29 in 1881, and 2.26 in 1891. While, on the other hand, the ratio of insanity to the population between the ages of forty-five and sixty-five years was 6.16 in 1871, 7.20 in 1881, and 7.83 in 1891, and above the age of sixty-five years the ratios in those years were successively 6.95, 8.0, and 8.61 per 1,000 living at those ages. Thus the whole of the increase in the ratio of insanity since 1871 has occurred above the age of forty-five years, which fact can not be with probability attributed to the occurrence of new cases of insanity in later life. These are some of the grounds on which it appears justifiable to base the satisfactory and reassuring conclusion that the rate of occurring insanity has actually declined in recent years, and the continued increase of existing cases, although at a declining rate, is simply the result of the more humane and skillful treatment in asylums of the constantly increasing proportion of the total insane that are brought within the official cognizance of the Lunacy Commissioners.—*The Lancet*, August 11, 1894.

**FOREIGN BODIES IN THE STOMACH.**—In the *JOURNAL* for April, 1892 (page 527), appeared a summary of the recorded cases of foreign bodies in the stomach, and in April, 1893, an additional case was reprinted from the *Canadian Practitioner*. In the *Lancet* for August 25, 1894, Dr. James F. Gemmel reports the following case:

A man, forty-three years of age, suffering from chronic mania, and who had been an inmate of the county asylum, Lancaster, for seventeen years, was on June 18th observed by an attendant to be very pale and evidently seriously ill. He was at once taken to the hospital ward, to which he walked without any indication of uneasiness or pain, undressed himself, and got into bed. So far as one could make out from his rambling statements, it appeared he had swallowed some nails on the previous day between break-

fast and dinner time. On inquiry it was ascertained that he had taken his food as usual on that day, but had little or no breakfast on the following morning. The patient looked pale, but did not appear to be in any great pain (only laying his hand across his stomach when asked if he had any pain), and made repeated and ineffectual attempts to vomit. The abdominal walls were not unduly resistant. To the left of the middle line, in the epigastric region, there was a lump, so far as one could judge, about the size of a duck's egg, heavy, irregular, and movable to a certain extent to one side or other of the middle line, according to the position of the patient, and which on palpitation communicated to the hand a sensation of fremitus. A rough and, as afterwards turned out, very inadequate estimate was made of the probable weight of the mass by getting the patient to remain on his hands and knees and placing one's palm in the epigastric and umbilical regions. As a further aid to diagnosis a long œsophageal forceps was passed through a rubber tube into the stomach, but failed to extract any portion of the foreign body. As the tube entered the stomach, however, a dark-colored and very fetid fluid with a strong ferruginous odor welled up into the mouth, and on withdrawing it the patient attempted to vomit, but could not eject anything. Operation was made, and on passing two fingers along the stomach that viscus was found to be occupied in its cardiac end by a heavy, irregular mass, and several hard, sharp points which had perforated its anterior wall, and now projected into the peritoneal cavity. An attempt to bring the stomach through the wound failed, owing probably to the great weight of its contents; the incision was therefore enlarged in a downward direction, and after some little difficulty the pyloric portion was drawn out and fastened to the abdominal wound by two loops of strong carbolized catgut. The stomach was then opened by a small incision, and the fluid contents, consisting of a dark-colored liquid with a strong ferruginous odor, were allowed to escape, the patient, to facilitate this, being tilted over onto his right side. The gastric wound was then enlarged sufficiently to admit the fore and middle fingers, when the stomach was found to be occupied by a mass of rusty nails, many of them nearly three inches in length, and some very sharp, bent, and twisted. Their removal, therefore, which was effected entirely by the two fingers, was very tedious, as many of them could only be extracted one at a time. When about half the mass was removed, a piece of matted hair, nearly two inches in length, was withdrawn from the lower end of the resophagus, from which it was projecting into the stomach. There were removed in all 192 nails (the majority being two and a half inches in length, and many even longer), half a screw nail, a piece of brass wire, a carpet tack, several small pieces of stick, a button, and the mass of hair already mentioned. The wound in the stomach was then sutured with carbolized catgut, the parts being thoroughly flushed with warm mercurial solution; the abdominal wound was closed and covered by a thick pad of cyanide gauze. The patient was then put to bed between warm blankets, and given a quarter of a grain of morphia hypodermically, followed by one-sixth of a grain a couple of hours afterward, as he was so restless. Stimulants *per rectum* were also administered, but he gradually sank, and died four hours after the operation, which had lasted nearly two hours.

*Post-mortem examination* (twelve hours after death). The œsophagus was found to be healthy. The stomach presented the operative incision in the pyloric region, contained about an ounce of the dark-colored ferruginous-smelling fluid, and had its mucous lining covered by a darkly colored glary mucus. It contained no foreign body. The mucous coat was in some cases denuded almost in its whole thickness and was much lacerated, some of the lacerations being over half an inch in length and extending into the muscular coat. No perforations could be found, and there was no attempt at healing of the gastric wound. The intestines were somewhat distended; the contents were scanty, semi-fluid, and very dark in color—melaenic like. This condition was probably caused by the chemical action of the rusty nails and the hemorrhage from the wounded coat of the stomach. In the contents also were found several pieces of wood, but no nails. The peritoneal cavity contained a small quantity of dark-colored fluid. The membrane itself was somewhat injected. In the meshes of the large omentum a nail about one inch in length and two small splinters of wood were found, and they must have escaped through the incision in the stomach, as no visible perforation could be detected.

**REMARKS.**—That the stomach is capable of containing, without any marked pain or other symptom, even large foreign bodies, and for considerable periods, is well known, the post-mortem records of our large asylums furnishing curious and notable examples. It may also be said that, excluding gun-shot injuries and accidental swallowing, most cases of foreign bodies in the stomach occur in the insane. They are often only discovered after death, but how long they have remained in the viscus is, in some cases at least, quite impossible to determine, there being practically no symptoms during life. Of the class of substances likely to be attended with little apparent discomfort, and which may also remain for long periods, may just be mentioned hair, string, spoons, etc. Such being the case, it is perhaps only natural, when even the presence of a foreign body has been determined, to adopt the expectant plan of treatment. When, however, the foreign body is sharp and likely to perforate, or when a number have been swallowed and form a mass unable to be passed through the intestinal canal, the aspect of the case becomes quite altered, because sooner or later a fatal result may be apprehended. In this case the foreign bodies were numerous and sharp pointed, and they formed a mass which could be got rid of by no muscular effort, but would simply lie in the stomach till its component parts ulcerated through into the peritoneal cavity; consequently immediate operative interference was necessary.

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**ACTION OF TRIONAL.**—Dr. Otto Bakofen, in his inaugural dissertation, gives an account of certain experiments on animals which he carried out with trional at a time when the clinical effects of this drug were not so well known as they now are. From his observations he concluded that trional acts much more quickly than sulphonal, that the sleep produced by it lasts about an hour longer, and that the animals did not become habituated to it. Only by doses which, in comparison with the sleep-producing dose in man, and also in relation to the body weight of the animal, were enormous, and

which besides were given continuously or with only short interruptions, was it possible to poison the animals. In the kidneys, as in the other organs, no change was found. Haematoporphyrinuria was never observed.—*The Lancet*, August 25, 1894.

**ALCOHOLISM, ITS PREVENTION AND CURE.**—The following conclusions of a report by M. Ladame (Geneva), made to the Congress of French-speaking Alienists and Neurologists, at Clermont Ferrand, July 7th (*Progrès Médical*, August 11th), on the means of restraining and curing inebriety, may be of interest.

1. In the strife against alcoholism, all prophylactic, repressive, and curative agencies should be invoked that can be supplied by private or public resources or legislation.

2. Among the prophylactic agencies, every aid and attention should be given to the education of children, especially those that are morally and physically neglected, to the improvement of the dwellings of the working classes and to the means of living; also to all institutions intended for the material, moral, and intellectual improvement of the laboring classes (lecture halls, public kitchens and canteens, savings banks, temperance cafés, etc.).

3. Temperance societies, without which the best legislation will be a dead-letter, should be propagated everywhere. These societies act not only as a preventive by rescuing the drunkards and preventing their relapse, but they make public opinion and render effective the legislative measures to which they often give the initiative.

4. Penal legislation has been shown to be ineffective against alcoholism, and penalties, even the most cruel ones, have not been able to cure the inebriate. The accumulation of slight penalties, which to-day is the custom in certain countries, is especially detrimental. On the other hand, the impunity too readily admitted for alcoholic misdemeanants and criminals is a great social danger, and an actual premium for the perpetration of new crimes.

Penal legislation can actively aid in the strife against alcoholism: (1) By preventing the sale of adulterated or impure liquors. (2) By punishing inn-keepers and dealers who favor the drunkenness of their customers, and who furnish liquor to minors. Any one who knowingly makes another intoxicated should be punished by law. (3) By punishing public inebriety. But this punishment is only effective in those lands where energetic preventive measures have made it rare and condemned by public opinion. (4) By punishing still more severely not only the repeated acts, but drunkenness in certain places (courts, churches, public assemblies, etc.), or during certain occupations where it becomes perilous to others. (5) The medico-legal irresponsibility of those in alcoholic delirium should carry with it their legal confinement in special establishments which they can only leave after complete recovery, and when any fear of a relapse is out of the question. They should be re-imprisoned on the first warning of a relapse.

5. The loss of the parental authority, the interdiction of drunkards, and their being put under guardianship are necessary and effective measures, but they should not be resorted to generally prior to the commitment of the inebriates to an asylum intended for their treatment and cure.



6. The non-recognition of saloon debts is a legislative measure that may have a certain effectiveness in certain localities, like the prohibition of frequenting saloons (in the country and small towns).

7. Taxes, imposts, and duties on liquor have in themselves no effect on the consumption of alcohol. They only are of use in combating alcoholism when accompanied by other appropriate legislative measures and by a corresponding reduction of the tax on the so-called hygienic drinks (tea, coffee, chocolate, etc.). The reduction of the tax on wine and beer has no effect on the frequency of alcoholism.

8. The number of saloons can not be taken as a criterion of the consumption of alcohol in a country, and the reduction of the number of dealers has no parallel effect in the diminution of the use of strong drink.

The reduction of the number of saloons is, nevertheless, a good thing, but it is only useful when it is pushed to an extreme and accompanied by other restrictive measures on the fabrication and sale of liquor, and finally when public opinion is strongly in favor of temperance.

9. The license systems of Gothenburg and Bergen, which have worked admirably in Scandinavia, will not invariably find the favorable conditions that have made their success. These systems operate only indirectly in diminishing alcoholism, which can only be obtained by other concomitant restrictions.

10. State monopoly has thus far given good results in Switzerland by diminishing the consumption of brandy by some 25 per cent and in assuring the purity of the liquors. This plan can not, nevertheless, be adopted generally to the same advantage, since the political and economic conditions of the different countries have a strong influence on the results. The monopoly may be given in three ways, which can be combined among themselves—monopoly of manufacture, monopoly of rectification, monopoly of sale. According to the case one or another of these can be adopted, or two of them, or all three together. But they alone will never be sufficient to suppress intemperance.

11. The plan of total prohibition, national or local, of American origin, has had a good influence on many States of the American Union, in certain localities in England, Holland, and the Scandinavian countries. The present customs of most European countries make the application to them of this system impracticable.

12. The assistance of the victims of alcohol demands first of all the foundation of asylums for the cure of drunkards. These asylums should replace the prisons and houses of correction, which aggravate the physical and moral state of inebriates who are placed in them and help to make them incurable.

13. These asylums should be organized and directed on medical principles. They can receive recent and curable cases. The law should accord to these asylums the right of detention of drinkers who are there interned by a medical opinion for a minimum period of six months to a maximum of two years.

14. Total abstinence from alcoholic drinks, labor, and discipline are the fundamental principles of the moral treatment in asylums for inebriates. The *personnel* and employés should conform to these as well as the inmates.



15. On leaving the asylum the cured inebriate should be placed in total abstinence surroundings, under the patronage of temperance societies. At the least menace of a relapse there should be authority for his immediate return to the asylum.

16. Insane, epileptic, and criminal drunkards ought not to be admitted into the asylums for the cure of inebriates.

17. Special establishments should be founded for the detention and treatment of the insane, epileptic, criminal, and morally perverted inebriates.

18. The establishment of special institutions is desirable where incurable inebriates can be placed who, by their dissipation, immorality, and violence, are a danger to their families and to society.

After a discussion on these propositions, which was partaken in by MM. Bourneville, Doutrebente, Vallon, Denis, and Brissaud, the congress passed the following resolution:

"There is need of fixing the legal conditions for the special internement of habitual drunkards, dangerous to social order. A special asylum ought to meet the needs of this particular class. Lastly, in the erection of this new establishment the commissions and councils chosen ought to consult with alienist physicians in regard to the practical conditions of the application of this new mode of assistance, and in regard to the most appropriate internal administration to that end."

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PROPHYLAXIS OF DEGENERACY.—At the session of the French Association for the Advancement of Science, August 10, 1894 (rep. in *Le Progrès Médical*, August 18th), M. Berillon offered a communication on this subject. He said the increase of signs of degeneracy in children is of a nature to attract the attention of hygienists. Degeneracy reveals itself not only by physical stigmata, by functional disorders, such as incontinence of urine, stammering, convulsions, by mental disorders (night terrors, somnambulism, perverse instincts, etc.), but it is particularly characterized by a tendency to automatic habits. The frequency of these automatic habits in degenerates can be explained by the fact that this condition has abolished the inhibitory power of the brain against them, the moderating capacity that is one of the most remarkable properties of the healthy nervous system; and these habits are almost invariably opposed to the most elementary hygienic rules. The child who bites his nails, for example, carries constantly to his mouth pulverized substances, the greater part of which are injurious. Every one knows the important part played by the direct absorption of pathogenic microbes in the production of disease. An inquiry in regard to the children in the Paris and the provincial schools revealed that more than a quarter of them were given to this habit. The onychophagists, at first sight, appeared more degenerate than their associates. In many cases the cure of this bad habit and of others allied to automatism, such as persistent onanism, has very notably diminished the signs of degeneracy, and caused a very marked improvement of the general condition of the children.

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INSANITY AND FEMALE DISEASES.—Dr. W. Gill Wylie reports (*N. Y. Medical Record*, August 4, 1894) three cases of reflex melancholia, due appar-

ently to genital disturbances, and relieved by the cure of those conditions. In the first case, that of a woman thirty-five years of age, with hereditary tendency to mental disease, the removal of a large detached subserous fibroid that had already begun to undergo calcification, seemed alone to produce a complete cure. The two other patients were cases of subinvolution and lacerated cervix, and relief of these conditions was quickly followed by recovery. The second and third cases had been diagnosed by Doctor Spitzka as reflex melancholia, probably due to genital irritation. He also mentions other similar cases, in some of which the results of operative treatment were good, and in others negative.

It is possible, as he says, that many cases of melancholia unsuccessfully treated by open air, rest, etc., could be cured if a gynecologist were called in consultation, but every experienced alienist can report more cases where this, too, was of no advantage than he seems to imply would be the case. This may perhaps be due to the fact that the field for this kind of work is also not so large in asylums as it is in private practice, as the cases that reach the asylums are more generally past the stage of their disease where such measures are effective.

Where there is, as in many of these patients, a strong predisposition, or a hereditarily unstable brain, a guarded prognosis is advisable, even with apparent recovery. Genital irritation is only one cause from which a reflex mental disorder may be incited.

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THE GASTRIC DIGESTION IN SITIOPHOBIA. —A. Ruata, Congr. Internat., Rome, 1894, *Annali di Neurologia*, XII, p. 139.

The author studied the gastric digestion in 26 patients (melancholia, simple, 2; with stupor, 5; agitated, 4; anxious, 2; mania, with furor, 1; paranoia, 3; dementia, apathetic, 5; agitated, 2; dementia, paralytica, 2). His conclusions are as follows:

1. Sitiophobia is constantly associated with alterations of digestion.
2. In melancholia with stupor the acidity, the totals of chlorides and hydrochloric acid, are markedly diminished. In simple melancholia they are slightly lessened, and normal or above in agitated and anxious melancholia.
3. In other forms of mental disease no lesion of chemism that can safely be associated with the insanity can be recognized.

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PSYCHOPATHIC FAMILIES. —Perugia, Congr. Soc. Freniatria Italiana, *Rivista Sperimentale*, XX, p. 68, reports the results of studies of some twenty-four psychopathic families, comprising altogether 110 (66 males, 44 females) lunatics, of whom 55 (30 males, 25 females) are, or were, inmates of the Reggio asylum.

The maximum number of insane in one family was twelve; the insanity traversed three generations in seven of these families, and in one, four generations. Moral degeneracy proceeded *pari passu* with the physical, since concomitant causes, such as sexual abuses, alcoholism, morphinism, onanism, aggravated the evil heredity. All the varied forms of mental disease were represented, but a degenerative basis was prevalent, and periodicity was constant and predominant. Thus there were frequent apparent

cures and relapses, indicating the hereditary tendency, and also the various types of hebephrenia, that is considered as a psychosis of heredity.

The hereditary influence seemed to act about the same in both sexes.

The insanity in ten families was transmitted from the paternal side, in six from the maternal, and from both in the remaining eight. In these last the results were most serious, as no member escaped, and the families are doomed to extinction. The maternal heredity is most serious. When the taint came from the father insanity appeared in 62.8 per cent of the descendants; when from the mother in 84.6 per cent.

In seventeen individuals from twelve of these families, there were various marked physical signs of degeneracy. These families have been a free field for bodily diseases, and eleven out of the twenty-four are becoming extinct, their last descendants being in an advanced stage of dementia.

The duration of the insanity varies widely, from a minimum of one month in three cases who died, to a maximum of twenty-nine years in an individual still living, and comprising all periods between these limits. The estimate of duration has, however, only a relative value when we consider how many of these hereditary cases are discharged, not as recovered, but as improved. Out of the 55, 13 are dead, 2 transferred to other institutions, 10 discharged, and 30 are still inmates.

From his observations Perugia deduces the following conclusions:

1. The morbid types are not transmitted in psychopathic families in identical forms, but become aggravated in their transmission through the generations.
2. Suicidal insanity only is constantly transmitted to descendants in the same form.
3. Among the various insane types the periodical form is relatively frequent.
4. The somatic signs of degeneracy are much more frequent than in non-hereditary lunatics, but are not aggravated proportionately to the psychic degeneracy.
5. Very often sexual abuses, alcoholism, morphinism, and onanism are concomitant causes aggravating the heredity in these families.
6. Bodily diseases attack the hereditarily insane with more than ordinary frequency.
7. Maternal heredity is propagated to the greater number of descendants.
8. Psychopathic families have a fatal tendency to intermix and fuse among themselves, thus reinforcing the heredity.
9. The psychopathic heredity affects both sexes equally.
10. Psychopathic families, especially those in whom the heredity is bilateral, are doomed to extinction, as much by their great mortality in infancy as the sterility of their marriages.

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CHLORALOSE.—Charles Fleming (*The Practitioner*, July, 1894) thus sums up the therapeutic facts in regard to chloralose, as deduced from his observations:

We may expect benefit from chloralose in all forms of functional sleeplessness, in the insomnia of psychical excitements, of hysteria, of neurasthenia and overwork, of functional cardiac irritability, and in attacks of epilepsy and somnambulism.

Secondarily, its use may enable us to separate objective from subjective pain, and so help, for instance, in the differential diagnosis of some forms of hysteria.

Chloralose will avail nothing in the insomnia of alcoholic excitement, multiple neuritis, or cerebral hemorrhage, or the sleeplessness due to any painful organic lesion or peripheral irritation.

In the insomnia of lunatics, where there is depression, it is said to be useful if given in large doses.

In the early stages of Bright's disease, chloral hydrate, owing to its effect on the blood pressure, is probably more efficient.

I can not help thinking that we may have in chloralose a practically pure hypnotic, that is, a drug of which the dose that is sufficient to produce sleep affects the psychical element directly and solely.

**PSEUDO-HYOSCYAMINE.**—G. Guicciardi, in a preliminary communication in the *Rivista Sperimentale*, XX, 2, p. 172, gives the following facts concerning this new product derived from *Duboisia myoporoides*, a plant of the family of the *Solanaceæ*. It has a formula like those of atropine and hyoscyamine of C 17, H 23, A 2, O 3, but differs from these in its physical qualities by the greater degree of heat required to decompose it, by the fact that in contact with chloride of barium it does not produce tropine or pseudo-tropine, but an isomer that is almost indecomposable, resisting a temperature of up to 250 (C). It is soluble with difficulty in water or ether, but easily in alcohol and chloroform.

The drug was obtained directly from Merck, and employed in aqueous solution of 2 per cent, or of alcohol and water of 1 per cent, and in water  $\frac{1}{100}$  per collyria. These solutions are limpid, alkaline, and strongly acrid bitter taste.

The drug was tested both experimentally and clinically. The effective dose in man varied between 6 or 7 decimilligrams, in very excitable and intelligent persons, to 5 or 6 milligrams in robust idiots and demented. Its absorption subcutaneously was rapid, more so than that of atropine or hyoscyamine, and its action on the pulse was also more transient. With rather strong doses the action on the skin and digestive organs was less than that of atropine, and possibly less than that of duboisine. Small doses increased the number of respirations, larger doses had the opposite effect. The dilations of the pupils was only moderate as compared with that from duboisine, and notably so as compared with atropine. Small doses caused more or less generalized muscular contraction, and an apparent increase of reflex excitability, but with larger doses these phenomena decreased. As regards its action on the vagus and circulation, it is that typical of atropine, first a transitory slowing of the pulse, and then a great acceleration. Tables are given showing the comparative traces from pseudo-hyoscyamine, atropine, and duboisine, which show its altogether comparable but more rapid and transitory action.

Very small doses, says the author, cause almost a sort of intoxication, while larger ones cause exhaustion, inertia, torpor, and ideational semi-arrest, abulia, drowsiness, and rarely sleep, phenomena in great part comparable to

those alcoholic intoxications. A physician colleague, after an injection of four decimilligrams, had at once a disinclination to exertion, a desire to keep quiet, yawn, etc., a feeling of weight in the head, limbs lax, involuntary contractions of the calves, slight dryness of the mouth, and a little difficulty in swallowing. Three hours after, the only feeling was that of slight fatigue.

In the treatment of insanity, Guicciardi has tried the drug on only a few cases—all females. The aim had been to modify the mental and motor excitement in mania, certain forms of imbecility, and hysteria, and in the latter also to abort the convulsive attacks. The hypnotic action is too uncertain for it to be of much value in this regard. Its effect as a sedative is more decided, and is analogous to that of duboisine. The hypodermic puncture is more painful, with pseudo-hyoscyamine the effects are less lasting and less certain, but they are much more rapid in their appearance and disappearance—two facts that may be of value therapeutically, especially in hysterical convulsive attacks. It is also more convenient in the dose, and less likely to be hurtful by its more moderate action on the heart.

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CAUSATION OF MENTAL DISEASE IN CHILDREN.—Dr. A. W. Wilmarth, *Jour. Am. Med. Ass'n*, August 18th, calls attention to the preventable causes of mental alienations in young children. From an analysis of one thousand histories of inmates of the Elwyn institution for the feeble-minded he found, after careful perusing of all cases in which there could be doubt, that in three hundred and twenty-two the condition was the direct result of disease that would ordinarily receive the physician's care. How many of these were actually the victims of neglect or maltreatment could probably not be stated, but the inference evidently is that many of them were.

First among these ailments was spasms of dentition, which furnished nearly one-fourth of the whole (75 cases). These doubtless were in many instances due to gastro-intestinal irritation, and if this cause were promptly treated, instead of the symptoms it induced, better results might have followed. Next in order came traumatisms, which are apt to be neglected, and after this the specific fevers, scarlatina, measles, etc. The sequelæ of these disorders are the matters most to be dreaded, and these are liable to appear only after the case has been dismissed by the physician or considered well by the friends, and thus fail to receive the prompt attention they require.

Other causes that probably could not have well been met by medical treatment, or the results of which were perhaps unavoidable under any circumstances, were cerebral inflammation (42 cases), mental shock or fright (13 cases), heat (sunstroke), (7 cases), epilepsy of unknown origin (20 cases), and exposure (1 case). These altogether constitute about one-fourth of the whole number; possibly we should add to them a few more scattering causes, given as marasmus, poisoning, etc., that would make the proportion a little greater.

The paper is a thoughtful one, and its subject is worthy of consideration.

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DR. H. M. HURD, *Boston Med. and Surg. Jour.*, Sept. 20th, reviews "Some Mental Disorders in Childhood," especially melancholia, confusional insanity, hebephrenia, and certain of the neurasthenic obsessions, or impulsions coprolalia, etc. He finds these occurring commonly in hereditarily predisposed,



neurotic, and feeble children, and in backward children who are over stimulated and pushed in their education. Backwardness does not necessarily imply mental defect, but it may involve a stress that the brain of the child is unable to withstand, under high-pressure educational systems. Imperative conceptions and coprolalia are given as illustrations of impulsive aberrations. Mania, Doctor Hurd has observed, takes in children usually the form of confusional insanity, melancholia generally does not develop prior to puberty, and then is very similar to that in the adult. Pubescent insanity is the characteristic type, and in the majority of cases develops into cyclical insanity of the adult.

Doctor Hurd concludes with a protest against the high-pressure methods of education, that have sometimes made even reform methods injurious. Gymnastics instead of a recreation is too often a tedious and perfunctory duty.

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DR. R. DEWEY, *Review of Insanity and Nervous Disease*, June, 1894, gives a statistical study of the early antecedents of four hundred persons, two hundred sane and two hundred insane, the result of two thousand circulars sent out to friends and acquaintances. From the replies an equal number of each, sane and insane, was selected, the condition being that, in regard to the insane, they were the most complete and intelligent, and for the sane, that they must be between the ages of twenty-five and thirty, and have never suffered from any mental disorder.

The general result was that all the conditions regarded as injurious to mental and bodily health were decidedly more prevalent among the insane than the sane. A few of the special facts are:

That the early use of tobacco was more than twice as frequent in the insane; that the use of tea and coffee in very early life was about three times as frequent in the insane as in the sane; that the percentage of early orphanage was greatest in the insane, as was also that of parental discords. The same was true as regarded over-indulgence by parents, and also neglect and poverty. On the other hand, wealth and luxury seemed favorable to sanity.

Including under one head all kinds of injuries, serious diseases, and misfortunes in early life, it was found that they were over five times as frequent in the insane as in the sane.

Naturally, as the author remarks, the facts as regards vices, insanity, etc., in the family history, are liable in such statistics to be incomplete, but so far as they go, the facts obtained are significant.

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INSANITY FROM ALCOHOL.—In a recent special report of the Lunacy Inspectors of Ireland, the opinions of the medical superintendents of the district asylums are given, as regards alcoholic intemperance as a cause of insanity. Twenty out of twenty-two agree in making it, after heredity, the most prevalent cause. The proportions estimated of insanity due to alcohol varied from 10 to 35 per cent of the total admissions.

Two superintendents call special attention to transformed inebriate transmission, i. e., the insanity of children of intemperate parents, who are the victims of various neurotic disorders, insanity and epilepsy in particular.



**RANGE OF EXAMINATION OF WITNESSES ON QUESTIONS OF SANITY.**—To determine the mental capacity of an individual at a particular time, it is often necessary to inquire into the state of his health, his appearance, conduct, habits, etc., for some time before and after the period in question. No absolute rule, limiting the extent of the examination to fixed periods, can therefore, it has been said, safely be laid down, in consequence of the variety of cases which occur. This is applicable also to criminal cases. Where the issue is insanity, the Supreme Court of Arkansas declares, in the recent case of *Green v. State*, the examination of witnesses may take the widest range, going into the personal history of the defendant for any number of years prior to the commission of the act for which he is accused, showing temper, character, disposition, etc. And if it appears that the insanity alleged is hereditary the inquiry may extend even beyond—to the ancestors and collateral relations of the defendant, if so near in blood as to indicate that the insanity of which proof is made may have been transmitted. But this broad statement of the rule is subject to the salutary limitation which must govern in the production of all evidence, i. e., "the evidence must tend to prove the issue."—*Journal Am. Med. Ass'n.*

**POWER OF COURT TO EXCLUDE NON-EXPERT OPINIONS AS TO SANITY.**—One of the instances where non-expert witnesses may express their opinions is on questions of sanity. But their right to do so is not unrestricted. In the case of *Denning v. Butcher*, decided by the Supreme Court of Iowa, May 25, 1894, it was insisted that all that is necessary to qualify the witness is a statement of the facts and circumstances upon which his opinion is founded, and their sufficiency can not be questioned. The right of a non-expert witness to give an opinion based upon facts fully disclosed to the jury has always been recognized, says the court; but, it adds: It is equally clear that the trial court has the right to determine whether such facts have been disclosed as to entitle the witness to express an opinion. That is a preliminary question and a power which must be possessed by the court, else such a witness, on stating a single fact of such a character that no opinion of sanity or insanity could properly be based thereon, would be permitted to give his opinion as to the party's mental condition. True, it may be impossible to lay down a rule as to just what statement of facts would show a sufficient foundation to warrant the giving of an opinion by a non-expert witness. That must depend upon the circumstances of each case, and must be left for the trial court to determine in the exercise of a wise legal discretion; and its ruling in that respect should not be disturbed, unless it clearly appears that it has not properly exercised the discretion with which it is vested.—*Journal Am. Med. Ass'n.*

## BOOK REVIEWS.

*A Practical Manual of Mental Medicine.* By DR. E. RÉGIS, formerly Chief of Clinique of Mental Diseases, Paris; formerly Assistant Physician of the Sainte Anne Asylum; Physician of the Maison de Santé de Castel d'Anterre; Laureate of the Medico-Psychological Society, and of the Faculty of Medicine of Paris; Professor of Mental Diseases, Faculty of Medicine, Bordeaux. With a preface by M. BENJAMIN BALL, Clinical Professor of Mental Diseases, Paris. A work crowned by the Faculty of Medicine of Paris, Chateaufvillard Prize, 1886. Second edition, thoroughly revised and largely rewritten. Authorized translation by H. M. BANISTER, A. M., M. D., late Senior Assistant Physician, Illinois Eastern Hospital for the Insane; member of the American Medico-Psychological Association; member of the American Neurological Association; member of the American Academy of Medicine, etc. With introduction by the Author. Utica, N. Y. Press of American Journal of Insanity, 1894; 16 mo., pp. XVI, 692.

This is, as mentioned by the translator, the first English translation of any recent French work on mental diseases, and appearing as it does with the indorsement of the medical faculty of Paris, and of Professor Ball, it may be assumed to be fairly representative of the French school of psychiatry.

In its scope and extent the work seems intended rather as a text-book than as an exhaustive treatise. The topics are, for the most part, treated concisely, and almost entirely in general terms. There is an almost complete absence of clinical illustrations of the author's doctrines. The style of the book is clear and the arrangement orderly; the book is one that is easily understood and remembered, although the absence of illustrative examples makes it somewhat dry reading.

After a brief but quite satisfactory historical sketch of the subject, the author in the first section, under the head of General Pathology, discusses successively in the first chapter the definition, etiology, progress, duration, terminations and complications, prognosis, pathological anatomy. In Chapter II the symptomatic elements of mental alienation are considered; first, the functional elements, under the heads of disorders of general activity (excitement, depression); disorders of the psychic sphere and disorders of the physical sphere; and, secondly, constitutional elements—lesions of organization (so-called stigmata of degeneration) and lesions of disorganization.

In defining insanity he insists on the necessity of differentiating it from mental alienation, of which it forms a part. Mental alienation he defines as "*the total of the pathological conditions essentially characterized by disorders of the intelligence;*" insanity as "*a special disease—a form of alienation characterized by the accidental, unconscious, and more or less permanent disturbance of the reason.*" The book treats of a large variety of forms of mental alienation other than those included in his definition of insanity, and we question both the utility of the distinction and the consistency with which he carries it out. All forms of dementia, for instance, are classed among the constitutional alienations, as distinguished from the insanities, so

that when a maniac or a melancholiac passes into terminal dementia, he ceases to be insane and becomes merely alienated. Progressive systematized insanity (paranoia) is an insanity; "the form of systematized insanity first described by Sander under the name of original systematized insanity, on account of its nature and precocity, that foreign authors, as was stated in the preceding chapters, call *paranoia primaria*" (p. 291), is not insanity, but a degeneracy of evolution.

His classification (Chapter III) is as follows:

#### I.—FUNCTIONAL ALIENATIONS (INSANITIES, VESANIAS, PSYCHOSES).

GENERALIZED OR SYMPTOMAT- IC INSANITIES.	(1) <i>Mania.</i>	Subacute mania (maniacal exaltation). Acute mania (typical mania). Hyperacute mania (acute delirium). Chronic mania. Remittent or intermittent mania.
	(2) <i>Melancholia or etypomania.</i>	Subacute melancholia (melancholia de- pressiva). Acute melancholia (typical melancholia). Hyperacute melancholia (melancholia with stupor). Remittent or intermittent melancholia.
	(3) <i>Insanity of double form.</i>	Continuous insanity of double form. Intermittent insanity of double form.
PARTIAL OR ESSENTIAL INSANITIES.	<i>Systematized progressive insanity.</i>	First stage (hypocondriacal insanity). Second stage (persecutory, religious, po- litical, erotic, etc., insanity). Third stage (ambitious insanity).

#### II.—CONSTITUTIONAL ALIENATIONS (DEGENERACIES, DEVIATIONS, MENTAL INFIRMITIES.

DEGENERACIES OF EVOLUTION (vices of organ- ization).	<i>Disharmonies.</i>	Defeat of equilibrium, originality, eccen- tricity.
	<i>Neurasthenias.</i>	Fixed ideas, impulsions, aboulias.
	<i>Phrenosthenias.</i>	Delusional (multiple delusions of degen- erates). Reasoning (reasoning insanity, moral insanity). Instinctive (instinctive insanity).
	<i>Monstrosities.</i>	Imbecility. Idiocy. Cretinism, myxoedema.
DEGENERACIES OF INVOLUTION (disorganiza- tion).	<i>Dementias.</i>	Simple dementia.

In respect to this classification the author says: "There are no primary states of mental alienation other than the preceding. All other insanities do not exist as distinct entities. They are nothing but associations of a generalized simple insanity, mania or melancholia, with some physiological or pathological process in the organism."

The meaning of this seems to be, (1) that the conditions specified in the classification are distinct entities, and not symptoms of pathological processes, and (2), that when we have mental disturbance, for instance, in general paresis, it is the association or combination of the mania, or melancholia, or

dementia, with the independent morbid process in the brain, not as a symptom, but as a distinct disease. We doubt if the author would maintain the proposition in this form, and certainly do not think it tenable. It may be true that there are no symptoms of mental derangement which may not be found in cases in which no exciting cause can be discovered, but the true statement of the case would seem to be, that the same symptoms may be excited by various causes, some of which we know, while we are ignorant of others.

It may be within the recollection of some of our readers that continued fevers were divided into the classes of synocha, typhus, and synochus. A pathologist of those days may have said that no other continued fevers existed as distinct entities, and that all other fevers were nothing but associations of one of these with some morbid process in the organism.

Coming to the subject of special pathology, in the first section he takes up the forms of insanity, classified as primary states of mental alienation. Subacute mania he holds to be the first degree of mania. It is characterized by excitement, without mental confusion or incoherence, and with exultation of the intellectual faculties. In acute mania there are, with the excitement, mental confusion, incoherence, and numerous varied illusions. Hallucinations he considers very rare. Hyperacute mania, or acute delirium, he considers merely the highest degree of mania. We do not agree with the author in considering these merely gradations in the same morbid process.

In melancholia, likewise, the subacute form is simple depression with intellectual lucidity; acute melancholia is accompanied with distressing delusions, and, almost constantly, by hallucinations; hyperacute melancholia includes all stuporous states. We do not think that we have here merely three grades in the same morbid process.

Both mania and melancholia may assume a remittent or intermittent form. Both may become chronic, and the chronic condition in both may pass into dementia. The author does not mention the possibility of terminal dementia without the intervention of chronic mania or melancholia.

There is nothing calling for special comment in his account of insanity of double form — alternating mania and melancholia. He recognizes its unfavorable prognosis, and the large share taken by heredity in its causation.

In an appendix he gives an account and illustrations of a graphic method of representation of generalized insanities, in which the degree of excitement is signified by the distance above, and of depression by distance below a normal line, the subacute, acute, and hyperacute grade, being each divided into five degrees.

In Chapter VII, on partial or essential insanities, he gives a very clear but, in our opinion, rather too schematic account of the usual progress of cases of paranoia from the period of subjective analysis — hypochondriacal insanity — through the period of delusional explanation — insanity of persecution — to the period of transformation of the personality — ambitious insanity. In respect to the diagnosis, he mentions that sometimes the patients, under the influence of their troubles, take to drink, so that alcoholic delirium may mask the characteristic symptoms, and give rise to mistakes in prognosis.

The chapters devoted to the author's second class of mental alienations —

degeneracies, deviations and mental infirmities — are, to our thinking, the most interesting and important of the book. According to the author's view, "they represent anomalies of the organ, the insanities being disturbances of its function." After briefly noticing the ill-balanced, eccentric, and original characters, he takes up the subject of neurasthenia, with the cerebral form of which alone he concerns himself. The essential disturbance he places in the will — on the one hand, lack of inhibitory power, resulting in obsessions, fixed ideas, and morbid impulses; on the other, lack of active power — aboulie obsessions. In the former class a fixed idea takes possession of the mind, and can not be banished by any effort of voluntary attention. Under this head are included the obsessions of indecision — *ma-ladie du doute* — the various "phobias;" the morbid impulses, as kleptomania, pyromania, dipsomania, homicidal, and suicidal impulse; and erotomania, under which last generic term he comprises the various obsessions of a sexual character described by Krafft-Ebing and Magnan. In the aboulie neurasthenias, or obsessions, the patient is unable to set his motor apparatus in action. This inability may refer to any act. The author considers it a fortunate circumstance that this class of disorders has not been so much investigated, and, consequently, so much subdivided as the impulsive obsessions. One of the most frequent forms is the inability to rise from a sitting posture. Or the patient may be perfectly able to rise, stand, and walk on a level, but not to ascend steps. He may be unable to dress, to speak, or to write. All these incapacities come on intermittently, with intervals of entire freedom. The only condition with which this disorder is likely to be confounded is melancholia, but in melancholia it is the desire, not the feeling of ability to do the act, that is lacking, and the characteristic symptoms of melancholia are lacking in this condition. The treatment of the neurasthenic obsessions is that of neurasthenia itself. He has found hydrotherapeutics, massage, and electricity the most efficacious remedial agents. From hypnosis he does not anticipate a great deal, though he thinks it worth a trial when other means fail.

The third division of the degeneracies is what the author calls phrenasthenias — hereditary insanity, or insanity of the degenerates, which he defines as including the vices of organization or degeneracies, which are accompanied by insanity. As has been already noted, he excludes this class from the insanities, both in his definition and his classification. This apparent inconsistency, however, is a matter of minor importance; he gives an admirably lucid exposition of a most interesting and important group of mental derangements.

According to his view, degenerates — persons presenting the mental and physical stigma of congenital vice organization — do not become insane like other people. "In ordinary lunatics the insanity is everything; here it is only a secondary phenomenon, superadded and often episodic." He distinguishes three varieties — delusional, reasoning, and instinctive.

The delusional form, in its most characteristic aspect, is described by the author as follows:

"The insanity of degeneracy may, however, manifest itself, not merely in an ordinary form, but also under an aspect that is peculiar to itself. It



is then a special type, variable in its delusional expression, but with uniform and, so to speak, pathognomonic characters. The delusions are connected, coherent, lifelike, starting from false or misinterpreted data, but eminently logical in their deductions; they are never accompanied with hallucinations aside from hypnagogic or oneiric hallucinations exceptionally in certain cases; they develop by progressive extension of the parent idea, but without undergoing transformation or losing their earlier physiognomy; they reveal themselves in more or less chimerical, but persistent and tenacious claims, very often aggressive and dangerous. This form is incurable notwithstanding frequent remissions, and it usually terminates in cerebral complications." In this form of insanity he distinguishes the persecutory, ambitious, litigious, erotic and jealous, mystical, and political types. In the persecutory form, the patient resents keenly some real or fancied injustice, and devotes all his energies to obtaining redress, by appeals to the courts, the administration, and the public. Failing to obtain the justice he demands by peaceable means, he is apt to proceed to threats and violence. The ambitious cases differ from the preceding only in the circumstance that they seek, not the reparation of an injury, but the recognition of an alleged right. The litigious cases are those who have been described by Krafft-Ebing under the name of "*Querulanten-Wahnsinn*"—mania for disputes and lawsuits. In the erotic cases the patients imagine themselves beloved by some one who has given them no ground for such a belief; the jealous suffer from equally unfounded and absurd suspicions of conjugal infidelity. The mystics, with an instinctive tendency to religious enthusiasm, come to develop a religious system which they seek to impose on others, often with great success. Their insanity is characterized by peculiar hallucinations, consisting in apparitions of supernatural personages, occurring usually in the night, and so confused with sleep as to render it difficult to distinguish them from dreams. The political phrenastheniacs resemble them except in the fact that their mission is political rather than religious. The author has elsewhere undertaken to show that the celebrated regicides of history, apart from sects or conspiracies, have been of this class. *Folie à deux*, or communicated insanity, is of this type.

We do not remember to have seen the insanities of this class treated in so clear and comprehensive a manner elsewhere. This chapter should be studied by every one who has to do with cases of this kind in medico-legal practice.

Under the head of monstrosities the author treats of imbecility, idiocy, and cretinism. He recognizes the probability that the last-named condition is due to absence or suppression of function of the thyroid gland.

The subject of dementia is dismissed in five pages. The author considers it the same from whatever cause it may originate, and confines himself to a description of the progress of senile dementia without delusions. We do not think any one would suspect, from this portion of the book, the part which dementia plays in the practical work of caring for the insane. The second section treats of secondary conditions of mental alienation. We can not better explain the view which the author takes of them than in his own words.



"The associated or symptomatic insanities being, as has been shown in our classification, only the result of the combination of a simple generalized insanity, mania, or melancholia, with any process whatever, physiological or pathological, of the organism, we might, strictly speaking, dispense with making them a special study. It is advisable, however, for the sake of completeness, to sketch broadly their principal characters, laying stress more particularly on such of them as by their frequency and their importance are brought especially under the notice of the practitioner."

It is not necessary to reproduce his classification, from this standpoint, in detail. Its main heads are: I. Physiological conditions. II. Local visceral disorders. III. General diseases. IV. Diseases of the nervous system. V. Intoxications.

Whatever theoretical view may be taken, it seems to us that, from the practical standpoint, a work on insanity which failed to consider separately general paralysis, or the mental disturbances of epilepsy, would not be at all adequate to the needs of the practitioner. It is fortunate for the reader that the author does not take the course he suggests. Nor do we think that the mental symptoms of those diseases, of myxedema or delirium tremens can be said to be only the result of the combination of mania or melancholia with the pathological processes in the same sense in which it might be said of insanity of pubescence, or due to reflex action of uterine or other visceral disease.

The table includes most of the insanities that are commonly found in etiological classifications, although we miss our old friend, the insanity of masturbation, which, the author believes, in our opinion rightly, should be included in the insanity of puberty. For the most part, the varieties are concisely described. General paralysis, however, is very fully and satisfactorily treated. The author holds that it is a cerebral or cerebro-spinal disease, essentially characterized by progressive paralysis and dementia, and that the maniacal, melancholic, and delusional symptoms, although very common, are to be considered as complications. He thinks that the uncomplicated form is much more common than is generally supposed, many of the cases being treated at home. Contrary to the majority of French writers, he believes the most common exciting cause to be syphilis, acting on a brain predisposed by a congestive or cerebral tendency. In therapeutics, he places most confidence in counter-irritation. He rejects trephining, and believes hydrotherapeutic measures more likely to do harm than good. The articles on alcoholic and saturnine insanity deserve special mention.

In the second part, devoted to the practical applications of mental pathology, the author takes up successively the diagnosis of mental alienation, the question of sequestration, and the treatment of the insane and medico-mental deontology. In respect to diagnosis, he properly lays stress upon the importance of using all available means of ascertaining the antecedents and condition of the patient before proceeding to a personal examination. He evidently is no believer in the home treatment of most cases of insanity, either in the interest of the patient or the public. He thinks favorably of farm colonies and boarding out in suitable cases. He is not a believer in absolute non-restraint, and thinks that some reaction is taking place in that regard in Eng-

land. The subject of hydrotherapeutics is considered at some length. The various modes of administration of electricity are detailed, brief instruction is given as to the special forms in which they are available. He makes no allusion to oöphorectomy as a remedial procedure, either among general therapeutic measures or when treating of utero-ovarian insanity. What he has to say on treatment by drugs is largely comprised in a therapeutic formula. Under the head of deontology he treats of the physician's duty when consulted as to the conjugal relations, the chances of heredity and the advisability of marriage among the insane or their descendants.

The book closes with a section on medico-legal practice, under the heads of penal responsibility, crimes and misdemeanors of the insane, and medico-legal expertise, or methods of examination in medico-legal cases, all of which is worthy of careful study. A good index adds to the value of the work.

In conclusion it should be said that the work of translation is admirably done, the make-up of the book attractive, the paper and type excellent, and the proof-reading exceptionally good. The book is one which should find a place in the library of every student of the subject.

W. L. W.

*Sleep, Sleeplessness, and Hypnotics.* By S. V. CLEVENGER, M. D., Chicago. Reprint from *Journal of American Medical Association*, March 10, 1894.

The main object of this pamphlet would seem to be the advocacy of chloralamid as a hypnotic on theoretical grounds. The author holds that the phenomena of sleep are due to the functional inactivity of the cerebral cells for the purpose of repairing waste; that "the cell eats while the colonial activity ceases, and this is the meaning, the end, and aim of sleep." From this point of view, it seems unfortunate that he does not discuss the causes of insomnia, and explain, if explanation can be found, the reasons for the continual refusal of the cells to rest and feed, notwithstanding their apparent lack of nutrition.

He explains the hypnotic action of such drugs as alcohol, morphine, and chloroform on the supposition that they contribute to the nutrition of the cells; that the drugs are assimilated in such a way as to take the place of the nutritive elements normally supplied by the blood. He believes chloral to act by liberating chloroform in the blood, and inclines to believe that the toxic qualities of the latter are due to its solvent power over sulphur, phosphorus, and the fatty bodies. In chloralamid, on the contrary, he believes the solvent power of chloral over these substances to be inhibited by its union with formamid, so that it becomes an almost wholly nutrient hypnotic.

Assuming the correctness of the author's theory of sleep, it does not seem to us that his explanation of the action of the hypnotic drugs in question is altogether consistent with it. Normally, sleep ceases when the impaired nutrition of the cerebral cells is fully restored, and it would seem reasonable to expect that, if chloralamid, for instance, could supply, in a few minutes, the equivalent of the nutriment which, in ordinary circumstances, requires hours for its accumulation from the blood, wakefulness rather than somnolence should be the result. However this may be, the value of the drug

does not necessarily depend on the validity of the explanation of its action. The author considers its efficacy as a hypnotic, and its superiority to other drugs of that class fully established. He is also led to attribute to it a certain degree of analgesic power, from its usefulness in small doses in facial neuralgia. He recommends its administration in solution rather than in powder, and advises that if it is to be dissolved in water, it be prepared half a day beforehand, on account of its sparing solubility, and the fact that the solution deteriorates by keeping.

W. L. W.

*Suicide and Insanity: A Physiological and Sociological Study.* By S. A. K. Strahan, M. D., Barrister-at-Law, London, 1893.

In his preface to this work Doctor Strahan, who is already known as the author of certain suggestive semi-medical and popular works on sociological questions, states that his object is to teach a lesson to the public, which is inclined, as regards its sins of omission and commission in relation to the evil of self-destruction, to throw "the onus on Providence" and go its way, "marrying and giving in marriage the relatives of the insane, the epileptic, and the cut-throat, apparently with a fixed belief that there was small chance of the children resembling their fathers." He has sought, he says, "to trace modern suicide to its source; to show how large a percentage of what is really avoidable is deliberately propagated; and how closely it is related to those other abnormal conditions met with in all civilized communities. It is in the hope that people may be induced to use intelligently in the propagation of the human race, some of the knowledge, care, and forethought so successfully exercised in the breeding of the lower animals that this book is given to the public."

From the above quotations it will be seen that the author has a praiseworthy aim, though its practicability may be open to question. The main interest here is as to his method of treating the subject from the points of view from which we as alienists must regard it.

Doctor Strahan divides all suicides into two great classes, the rational or *quasi*-suicides, and the true, or irrational suicides. The former includes all those cases in which death is deliberately chosen by a rational being as preferable to life, thus taking in all the suicides caused by poverty, physical suffering, dishonor of any kind, as well as a small proportion of suicides that are not usually or popularly classed as such; for example, when a man deliberately gives up his life for others, the Casabiancas, the Roman soldier at Pompeii, etc. These lack the condemnable element of cowardice, selfishness, or human weakness, and may be fairly left out of consideration in the discussion of this subject as a pathological or sociological problem.

In the second class, or the true or irrational suicides, the author includes all who are impelled to suicide by insanity, morbid impulsion, or imitation; in whom the act is the result of a fatal defect of the organization, those cases which, to use his own words, "seek death for death itself," and in whom the act is one of the signs of human degeneracy. He divides these into three groups or classes:

*First.* That in which there is mental aberration.

*Second.* That in which the act depends upon an irresistible impulse, and in which there is no mental aberration; and

*Third.* That in which a certain predisposition makes it possible for a slight shock, trial, or irritation to awaken the unnatural impulse.

His distinction here is further emphasized in the following chapters, in which he claims only a small proportion of suicides are due to insanity, and makes a distinction that seems to us unjustifiable between insanity and morbid impulsions, one that certainly ought not to hold in legal practice. The man who takes his own life, because he is irresistibly impelled to the act, is in reality as much mentally aberrated as the melancholiac who destroys himself because of his depression or his delusions, or the paranoiac who does the same to escape his imaginary persecutors. These, indeed, are rational suicides, almost as much so as the man who hurries himself out of existence to escape actual evils or disgrace; the only truly irrational suicide is the impulsive one. It would almost seem as if the author's legal training had overridden his medical knowledge, and the decisions of judges as to delusion and knowledge of right and wrong were the basis of his definition of insanity. He is, moreover, hardly consistent with himself in this distinction, for he admits that impulsions are usually classed among the symptoms of insanity, and includes under this class cases of suicidal frenzy, which were incidents of or the starting points of continued mental aberration terminating in final dementia. The "suicides for pleasure" even come very near the border line of mental aberration, inasmuch as they suffer from an obliteration or perversion of the impulse of self-preservation that is part of the psychic make-up of every normal individual. Of the suicides from imitation we can say with truth that they are weaklings, and where a rational motive is lacking they properly fall into the class of impulsive suicides. The fact, admitted by Doctor Strahan, that all these individuals are more or less the victims of degeneracy, ought certainly to be taken into account in passing judgment upon them.

In his chapter on "Suicide and the Law," the author's criticisms of enactments against suicide have much force. Practically, in fact, these laws seem to be generally a dead letter, and their efficacy against determined suicides is very dubious. The antiquated regulations that provided for what we may call post-mortem punishments for the act, though repulsive to our better sentiments and contrary to the spirit of our civilization, were probably more effective.

There are, he says, only two ways open to the reformer in this regard; one is to sweep away all laws against suicide, and the other is to make attempted suicide a legal evidence of dangerous insanity. He favors the first, and considering the fact that the existing laws are practically nullities, this may be the more rational procedure. Certainly to make all suicides evidence of insanity would not be scientific or correct and might lead to frauds and abuses that are easily imagined.

The final chapter entitled "Is Suicide Justifiable Under Any Circumstances?" is hardly one that adds to the value of the book or is essential to it as a scientific treatise. Doctor Strahan apparently ignores the higher law of

morals that was recognized by the heathen Pythagoras, who compared a suicide to a soldier deserting his post. This seems to us a much fitter comparison than that of a shareholder withdrawing from a joint stock association that is used by the author of this work.

Certain parts of the book have been passed by as they seemed less to call for notice; such are the historical chapters and those on the causes, etc., of suicide. While there are, as has been shown, certain points in which the views seem erroneous, it is ably written and a valuable contribution to the literature of its subject. So far as it is an attempt to point out the evils of degeneracy, and to call attention to the need of avoiding them, the motive is a worthy one, but the practical outcome will, it is to be feared, be very slight.

*Recherches Cliniques et Thérapeutiques sur L'Epilepsie, L'Hystérie, L'Idiotie et L'Hydrocéphalie.*—Compte Rendu du Service des Enfants Idiots, Epileptiques et Arriérés de Bicêtre pendant l'année 1893. Par Bourneville, Médecin de Bicêtre. Avec la collaboration de M.M. Boncourt, Cornet, Lenoir, Jules Noir, et P. Sollier. Vol. XIV. Avec 89 figures dans le texte et un planche, Paris, 1894.

This, the fourteenth volume of the reports of the department for idiots, epileptics, and imbeciles of the Bicêtre, contains, besides the statements of the movement of population, the methods, etc., for the year 1893, the usual supplement of important scientific papers which make up about six-sevenths of its bulk. All of these are valuable contributions, but some are of more general or especial interest than others. Among these may be mentioned the first, on the surgical and the medico-pedagogic treatment of idiots and backward children, of which we reproduce the conclusions:

1. The surgical treatment of idiocy is based on a hypothesis unconfirmed by pathological anatomy.
2. The premature synostosis of the cranial sutures does not exist in the different forms of idiocy. It is only exceptionally that we encounter a partial synostosis.
3. The lesions to which idiocy is due are ordinarily profound, extensive, and various, and little susceptible to craniotomy.
4. The diagnosis of synostosis of the sutures and of the thickness of the skull is so far beyond our means of investigation.
5. According to the majority of surgeons the results obtained by operative intervention alone are slight, dubious, or *null*. Serious accidents (paralysis, convulsions, etc.), and even death may follow it.
6. The medico-pedagogic treatment based on the method originated by Seguin, and perfected by the introduction of new procedures, when applied judiciously and kept up for a sufficient period, nearly always produces a marked improvement and very often suffices to put the idiot and undeveloped infant into a condition in which he can live among his fellows.

The report on the experiments with the Brown-Sequardian injections of testicular fluids in epilepsy, by Bourneville and Cornet, is a rather negative one as regards results, as perhaps might have been expected. The other papers in the volume are valuable clinical and pathological contributions,



but too detailed and lengthy for us to do them justice in the space at our disposal. As a whole the volume is a worthy successor to those that have preceded it. It is amply illustrated by wood-cuts and photogravures.

*Pain, Pleasure, and Aesthetics: An Essay Concerning the Psychology of Pain and Pleasure, with Special Reference to Aesthetics.* By Henry Rutgers Marshall, M. A. London: Macmillan & Co., 1894.

We are led to notice this book from the interest it may well have for our readers from the standpoint of physiological psychology. It is indeed a good illustration of the increasing importance to psychological medicine of the science of physiology.

Mr. Marshall has in this volume attempted to solve one or two psychological problems, or rather to offer what appears to him a possible, and, indeed, their most probable, solution. The question as to the nature of our pleasurable and painful feelings is an open one, and a distinguished neurologist has rather recently expressed an opinion contrary to that held by the majority of physiologists and psychologists, that there are no special sensory pain nerves or centers, and in agreement with that held by the author of the work before us. The majority in this case, however, is not an excessive one, as with very many authorities the question is still held to be an open one. The view here held, that pleasure and pain are general qualities that may belong to any conscious element, is well reasoned out by the author from physical as well as psychological data. He fails, however, to utilize, except perhaps indirectly, the facts, known to any observing alienist, of the analgesia of dementia, which seem to support his view far more than the opposite one. Since the existence of analgesia apart from anaesthesia is really the chief ground of objection to the *quale* theory he supports, it would appear that such pathological phenomena as can be easily found in any large asylum would have been called upon by him in his argument. We notice this because it seems to us that there is a very large field for the study of physiological psychology on its pathological side that is hardly at all utilized. Such works as this and such subjects as it treats of might be profitably perused by asylum physicians as suggestive of lines of special clinical observation and *quasi* experimental research. They are not easy reading, but are none the worse for that fact in an environment that has, we fear, too often a tendency to routinism and comparative mental inactivity.

The chapters on aesthetics and the author's views are interesting, but lack of space forbids their being fully noticed here. It is a thoroughly scientific psychological work that, as alienists, and therefore psychologists, our readers may profitably study.



## NOTES AND COMMENT.

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DR. EMMANUEL RÉGIS.—There are few, if any, French alienists who are better known to their American brethren than the subject of our frontispiece. Moreover his reputation has been considerably extended of late among English-speaking alienists the world over by the publication of an American edition of his "*Manuel Pratique de Médecine Mentale*" (a work crowned by the Academy of Medicine of Paris), as rendered in English by Dr. H. M. Bannister of Chicago.

Jean-Baptiste Joseph Emmanuel Régis was born at Auterive (Haute Garonne), April 29, 1855. He is a scion of good medical stock. His father, Dr. Louis Régis, a man of unusual intellect and a physician of high standing, was engaged in the practice of medicine until his death, at the advanced age of eighty-one. His cousin, Dr. A. Linas, in his day one of Calmeil's internes at Charenton, was one of the most distinguished writers on psychiatry about twenty years ago.

Doctor Régis studied medicine at Toulouse and Paris. At the age of twenty-one he was *externe des Hôpitaux* at Paris. A year later, as *interne des Asiles d'aliénés de la Seine*, he began in earnest to lay the clinical foundation of his professional career as an alienist. In 1880 he became chief of clinique of mental diseases of the Paris Faculty of Medicine and assistant physician of the Sainte Anne Asylum. In 1883 he was appointed physician to the private asylum for the insane at Bouscat (Gironde), from which to the present time he has been professor of mental diseases at the Faculty of Medicine of Bordeaux. He is also official expert of the courts of the latter city.

Doctor Régis is a laureate of the School of Medicine of Toulouse, of the Medico-Psychological Society of France, of the Faculty of Medicine of Paris. He is a member of the editorial staff of the *Annales Médico-Psychologiques*, the *Archives de Neurologie*, the *Gazette Médicale de Paris*, the *Journal de Médecine de Bordeaux*, and the *Archives Cliniques de Bordeaux*.

The following is a list of his more important works: "*De la Dynamie ou Exaltation Fonctionnelles au Début de la Paralyse Générale*," 1879; "*De la Pseudo-paralyse Générale Saturnine*," 1880; "*La Folie à Deux ou Folie Simultanée*," 1880; "*Les Hallucina-*

tions Unilatérales," 1880, 1882, 1896; "Le Lavage de l'Estomac dans la Sitiophobie et la Mélancolie," 1881, 1886; "De la Pseudo-paralysie Générale Alcoôlique," 1881, 1883; "Folie à Double Forme et Paralysie Générale," 1882, 1884; "La Paralysie Générale chez la Femme," 1882; "Paralysie Générale et Hystérie," 1882; "La Folie Sympathique" (article in the *Dictionnaire des Sciences Médicales*, December, 1883); "La Paralysie Générale Pré maturée ou des Adolescents," 1883, 1885, 1892; "Les Familles des Aliénés au Point de Vue Biologique," in co-authorship with Professor Ball, 1884. "Le Projet de Loi sur les Aliénés devant le Sénat; Historique et Critique," 1887; "Folie Héréditaire chez les Gens Agés," 1887; "Rétraction de l'Aponévrose Palmaire dans la Paralysie Générale," 1887; "Syphilis et Paralysie Générale," 1888, 1889, 1890, 1892; "Crétinisme Sporadique avec Pseudo-lipomes Symétriques Sus-claviculaires," with Prof. X. Arnozan, 1888; "Les Aliénés en 1789 et en 1889," 1889; "Les Régicides dans l'Histoire et dans le Présent," 1890; "Les Neurasthénies Psychiques," 1891; "Des Auto-Intoxications dans les Maladies Mentales," with Doctor Chevalier Lavaure, 1893; "Psychose Infectieuse Polynéphritique," 1894; "Hallucinations Oniriques des Dégénérés Mystiques," 1894; "Manuel Pratique de Médecine Mentale" (2d edition, 1892).

ASSISTANT MEDICAL OFFICERS IN ENGLISH ASYLUMS.—In the discussion as to the status of assistant medical officers of asylums at the recent session of the British Medical Association some dissatisfaction with present conditions was expressed. A senior assistant physician, it seems, who has all the responsibility of a superintendent at times, gets only a fraction of the superintendent's salary, in some cases only a fifth or sixth of it; is not permitted to marry, is often allowed scanty quarters and less consideration than he ought to merit. These facts are obtained from the remarks of Dr. Charles Mercier, who opened the discussion. That men are found willing to accept and to seek the position under such conditions is no justification for them, and it is certainly exactly the best plan to succeed in *not* securing the best men. Dr. Lloyd Andriezen's remarks were still more severe, for he compared the majority of British asylums to the fig tree cursed by our Saviour, and stated that the service did not, and under prevailing conditions would not, attract those "capable or willing to show devotion to work and scientific investigation of the insanities." These words, coming from one who is himself an asy-

lum officer and a known investigator, have a certain force that those of an outsider can not carry, and are the more worthy of attention.

It is not and ought not to be any very great satisfaction to know that, while the shortcomings of American institutions and their officers are being animadverted upon and, we trust, exaggerated, similar criticisms are freely made on the other side of the Atlantic. We should all the more strive to combat the tendency which undoubtedly does exist in asylums and hospitals for the insane, isolated as they must often necessarily be from medical centers, to drop into ways of mere administrative routine. It depends largely on the superintendents whether or not the service is to be made attractive and investigation encouraged. There is reason to believe that this is being done more and more in this country, but there is much in this line that is yet undone. One of the first steps to be taken in making our institutions truly progressive would be to form "JOURNAL clubs," such as have been described by Doctor Hurd, in each large hospital where such an organization does not already exist. Before any one can know that he is making an addition to knowledge; indeed, before any one can investigate correctly, it is needful that he should have a fair knowledge of what others are doing in the same direction. There has been an immense amount of industry and energy wasted in American asylums for the want of just this knowledge, and it is largely for such reasons that "a certain condescension in foreigners" is so common as regards their estimates of American scientific medicine. That this is often undeserved is true, but we should force recognition of the value of our work, and to do this and to make it valuable we should generally acquaint ourselves with everything that bears upon our studies.

**THE RUSH MONUMENT.**—The letter of Doctor Rohé, published in this number of the JOURNAL, relates to a matter that should interest all who are connected with the specialty of psychiatry. Doctor Rush was not only a patriot and statesman, he was the first of America's eminent physicians, and he was preëminently the first American alienist. As such, moreover, he was second to none of his time, and American psychiatry for a long period shone entirely by his reflected light. His was our only great name. The letter needs no indorsement; the project of a monument to Doctor Rush necessarily commends itself to our readers, and we hope many may

be led to take a practical interest that will honor ourselves even more than it honors Doctor Rush. We shall hope for action by the Association when its members again come together.

IN AN INTERVIEW ON THE SUBJECT OF LUNACY AFFAIRS IN CONNECTICUT, published recently in the *New York Times*, Dr. Carlos F. McDonald, the president of the New York Board of Lunacy Commissioners, states in substance that the laws of that State are of such laxity as to admit of the creation of private institutions for the insane which are in the hands of incompetent or unworthy persons, or are not properly equipped for their work; also that legal commitment to institutions is not sufficiently safeguarded, and that the cure for such difficulties lies in the creation for the State of Connecticut of a board like the one now existing in New York; that is to say: A board possessing executive control and responsibility, and the power of interfering with the local administration of institutions.

We wish to examine this claim, and to inquire into the value of the suggestion of the New York Commissioner.

In the first place, we believe there are other and better remedies for such abuses as are mentioned above, and in the second place, we believe a fundamental principle of wise administration is violated in giving other than advisory and supervisory powers to State boards appointed to review the work of the State hospitals.

The great evil of giving administrative duties to supervisory boards of this kind is the division of power, and the frittering away of responsibility.

We believe it is acknowledged to-day that the more single and direct the accountability of all executive officers is made, the better the administration will be. This is a principle the correctness of which is abundantly affirmed by experience in every department of government. It is illustrated by the evils of municipal administration, and of State and general governments. From it springs the intelligent demand for concentration of power in the hands of the mayors of our cities; also the agitation which we are now witnessing for reform in the affairs of the naval observatory at Washington, as well as in the architectural bureau of the Treasury Department, which has been shamed into taking steps for better methods in construction of government buildings; and this principle of local self-government is equally important in lunacy administration. When the responsibility for the government of our institutions for the insane is divided

between the local managers and superintendent on one hand, and lunacy commissioners at the State capital on the other, it will be found just twice as difficult to fix responsibility, and to know where blame belongs for anything wrong, as when a single executive officer has the accountability fixed upon his individual shoulders. The State boards having oversight of institutions may, and generally do, have in most of our States, the power of reviewing the work of these institutions, of investigating all complaints, of revising and comparing the accounts and the transactions of the several institutions, and of publicly reporting to the executive of the State their conclusions, and the latter officer possesses all needful powers for correction of wrongs or abuses. This power of investigation, supervision, and public report is a wholesome and an adequate power, and leads to results with which, on the whole, the people of the several States have been satisfied. Another objection to lunacy commissioners with executive powers is that they must be paid and salaried officers, while boards of charities, as a rule, are not. As a result of this fact, the boards of charities are almost invariably selected from the class of men in the several communities who will serve from motives of public spirit and benevolence, and they very generally are selected from the two political parties; while paid and salaried commissioners are far more apt to come from the class who are to be rewarded for political services, and to whom the salary itself is an object, and who are thus from personal or partisan motives likely to be biased in their action. In this connection we shall take the liberty of quoting from the address of Gen. Roeliff Brinkerhoff, of the Ohio Board of Charities, before the National Conference of Charities, held at Nashville, Tenn., in May of the present year. General Brinkerhoff says:

In the nature of things, in a large State, the appointing and legislative powers can not visit and inspect the institutions in charge of these various [local] boards of control, and hence the necessity for some person or persons, whose special business it shall be to furnish the required information, based upon careful inspection and thorough investigation. To secure such inspection and investigation boards of State charities have been created, and in the nature of things they must be purely advisory if their functions are to be performed with entire impartiality. To give them executive or administrative powers is to defeat the purpose of their creation, for a board of control can not properly investigate its own actions. Therefore, with this understanding of the functions of boards of State charities and of [local] boards of control, it is clearly evident that they are entirely dissimilar, and should be entirely separated.



We will further venture to quote a sentence from a paper of our own on "State Policy in the Care of the Insane," which was published in the proceedings of the National Conference of Charities for 1892:

It is much to be preferred, therefore, that public-spirited citizens should hold such positions and labor in them from an honorable ambition and motives of humanity and benevolence, and having advisory rather than mandatory powers. The responsibility thus remains fixed where it should be — in the immediate management of the institutions, which can better work out individual excellencies than if all are reduced to a dead level by the rulings of mandatory commissioners.

Now as to the correction of the abuses alleged to exist in Connecticut. These abuses are: First, the existence of objectionable private institutions for the insane in the State; and, second, lack of sufficient safeguards regulating the commitment of patients. The first may be most properly regulated, as Doctor Macdonald suggests, by revoking the license of any private asylum found objectionable, and the power, both of revoking and granting, may be well lodged in the hands of the State boards of charities, and is so lodged now in many States. This function has always been performed in many of our States by the boards of charities in such a manner that no serious complaints have been made, and does not require the intervention of lunacy commissioners. Finally, the regulation and safeguarding of commitment to institutions relates to the most fundamental functions of government, and is already amply provided for if public officers already provided are sufficiently vigilant. We heartily approve, however, of the revision of all commitments by a central board, and of requiring the superintendents of insane hospitals, public or private, to promptly furnish a report, with copies of commitment papers, in each case admitted to their charge. Also, of facilitating correspondence with outside authorities and friends of patients. But all these things have been and are equally well done under supervisory boards. This is all that the lunacy commissioners can do in this direction, and it can be equally well done by a simple board of charities.

Absolute perfection has never been attained, and perhaps never will be, under any form of administration, but the difficulties complained of in Connecticut are not, in our opinion, so likely to be remedied by a commission with dangerous and questionable powers of administration as by a board of charities, exercising supervision, and supported and supplemented, if need be, by the all-sufficient power of the executive of the State.



THE SESSION OF THE AMERICAN NEUROLOGICAL ASSOCIATION, at Washington, May 30th and 31st and June 1st, brought out the usual number of high-class scientific papers and discussions. The address of the president (Dr. B. Sachs) laid especial stress upon the relation of the neurologist to general clinical medicine. He also called attention to the recent advances, and prophesied that the conception of the "neuron" would have very important bearings in the progress of neurological science in the next coming years.

Among the more interesting papers and discussions were those on myxoedema and the thyroid theory of Graves' disease; on the "crossed knee jerk;" on the "non-operative treatment of brain tumors," and on "the treatment of convalescence and the after-care of the insane." These are only a few and representative ones; many of the others were of equal interest and value.

At the close of the discussion of Doctor Stedman's paper on the after-care of the convalescent insane, a motion was made and carried that a committee be appointed to investigate the subject, and Doctors Stedman, Dana, and Dercum were so appointed.

We are rejoiced to see this subject taken up by the Neurological Association. The coöperation of the American Medico-Psychological Association in all efforts for after-care can be relied on. Our July number had a valuable description of French methods in this field by Doctor Parant.

Among the new members of the Neurological Association elected this year, we notice the name of our contributor, Dr. E. C. Bondurant of Tuscaloosa.

BERI-BERI.—*The British Medical Journal* of October 6th gives editorially a brief account of a curious epidemic now existing in the Dublin District Lunatic Asylum, Ireland. It seems to resemble the disorder known as *beri-beri*, which has generally been considered as a tropical disease rather than one of a temperate climate like that of Ireland.

At the date of writing there were 110 cases in the asylum, and thirteen deaths had occurred. The cause of the epidemic, whether bacterial, dietetic, or otherwise, is still a matter for conjecture. One thing, however, is stated: the asylum is badly overcrowded, having 1,500 patients in accommodations for only 1,100.

There would seem to be an opportunity from this misfortune to obtain valuable clinical and pathological data, and to possibly deduce useful sanitary conclusions.

AN INTERESTING REVIEW OF THE LITERATURE OF SEXUAL PERVERSION is given by Dr. Havelock Ellis, in the September issue of the New York *Medico-Legal Journal*. The resumé is on the whole judicious, and fairly states the merits of the different writers reviewed. The attention that this subject is receiving is justified by its medico-legal importance in certain respects. There is "nothing new under the sun," however, and this phase of human weakness and degradation is as old as the race, but it has of late come more prominently under medical consideration. The numerous editions of v. Krafft Ebings' work indicate also that perhaps there is a morbid interest in it on the part of the laity which can hardly be satisfactorily regarded.

CHANGES OF NAME FROM ASYLUM TO "HOSPITAL."—The increasing disuse of the words "asylum," "insane," and "lunatic" in the name of institutions for the insane is a striking fact at the present time. The word "asylum" is still almost universally used as a designation of institutions for the insane by people generally, both gentle and simple, but the words insane, lunatic, and asylum are being eliminated at a rapid rate from official titles.

In looking over our last published list we find the following States have adopted the term "hospital," in whole or in part: Alabama, Connecticut, Delaware, Washington (D. C.), Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Minnesota, Nebraska, New York, North Carolina, North Dakota, Ohio, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin; and in British America: Quebec, Nova Scotia, and Prince Edward Island.

The word "asylum" is still used as an official designation in Arkansas, California, Colorado, Georgia, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Nevada, New Hampshire, New Jersey, Oregon, Rhode Island, South Carolina, Texas, Vermont, and Virginia; and in British America: in Ontario, New Brunswick, and New Foundland.

Massachusetts, North Carolina, Texas, and Quebec use both hospital and asylum for different institutions, and Massachusetts and Pennsylvania retain the old designation "lunatic" with the newer one "hospital." Ohio is one of the States that has more recently changed to "hospital." New York keeps "asylum" in the city institutions.

For private institutions we have "hospital," "asylum," "retreat,"

"hall," "house," etc., but "hospital" in this connection also is a word more recently generally favored.

There is a good deal of sentiment about this, and there is a somewhat false sentiment which it seems to us is inclined to cover the unpleasing and undeniable facts by simply using words of pleasanter sound. We can not improve insanity by calling it some prettier name, still it is right to spare as far as possible and consistent the delicate and sensitive feelings which are so natural, and especially do we rejoice to see emphasis given to the idea of cure and recovery which the word "hospital" implies.

So far as the institutions are made hospitals in fact, as well as in name, this change is commendable.

DR. PLINY EARLE'S BEQUEST TO LEICESTER, MASS.—The town of Leicester, Mass., has received \$6,000, under the will of the late Dr. Pliny Earle, for the erection of a building for the public library of the town. There have not been many instances of an insane hospital superintendent making a bequest like this—or, indeed, we might add (with apologies to that *rarissima avis*, a wealthy hospital superintendent), having a spare \$6,000 for any purpose in life or death! We honor Doctor Earle the more, not only as one of the men of whose high reputation we have reason to be proud, but as a public-spirited lover of his fellow-men.

THE ACCIDENT TO DOCTOR WIGLESWORTH.—With a new sense of the ever-impending dangers of an insane hospital officer's life, we record the accident to Dr. J. Wiglesworth, superintendent of the Rainhill Asylum, Prescott, Lancashire, England. He was stabbed in the neck by a patient, who had obtained a sharpened staple, and had his internal carotid severed. The common carotid was ligated.

Doctor Blumer favors us with a letter he had received from Doctor Wiglesworth in reply to his own letter of congratulation on his fortunate escape, in which Doctor Wiglesworth says he is progressing favorably, and was able to leave home for a change to the health resort, from which his letter is written; he expects, however, that "it will be some little time before he can take up the reins of office again."

DOCTOR RICHARDSON OF THE STATE HOSPITAL, COLUMBUS, OHIO, has given his patients the most extensive picnic on record, so far as

we are aware, by taking 500 of them by special train to Sandusky, over one hundred miles, and then giving them a twenty-mile steamboat excursion on the lake. The affair passed off enjoyably and without accident.

DR. WILLIAM H. HARRISON's resignation at the Pennsylvania Hospital for the Insane was chronicled in our July issue, but we failed to add that Doctor Harrison had, after his six and a half years' service at the Pennsylvania hospital, been appointed assistant physician and pathologist at the State Lunatic Hospital at Harrisburg, Penn., where he has been for some time in the discharge of his duties.

APPOINTMENTS AT THE MATTEAWAN STATE HOSPITAL, N. Y.—Dr. R. R. Daly, appointed first assistant physician at the Matteawan State Hospital, Fishkill Landing, N. Y.

Dr. M. Langdon Bird, appointed medical interne at the Matteawan State Hospital.

Dr. Robert B. Lamb, assistant physician at the Matteawan State Hospital, has received an appointment as medical interne for a term of three months at the Royal Asylum, Morningside, Edinburgh.

Dr. George G. Armstrong, of St. Lawrence State Hospital, Ogdensburg, N. Y., has been temporarily appointed as assistant physician at the Matteawan State Hospital, to fill the vacancy during Doctor Lamb's leave of absence.

THE REMARKS OF DR. WALTER CHANNING in the present issue of the JOURNAL, upon Dr. S. Wier Mitchell's criticisms of insane hospital administration, will be read with interest, and the candid reader will, we think, agree that Doctor Channing answers many of Doctor Mitchell's contentions with facts and logic, showing that there are important considerations which were left out of the account by Doctor Mitchell, which are yet necessary to a fair statement of the issues involved. Doctor Channing is, of course, responsible for his views and the expression of them.

His position that the medical officers in charge of insane hospitals are not and can not be neurologists and psychologists, or that their scientific qualifications must be subordinate to their practical executive talents, we think, requires further examination. We consider the scientific work and the practical work to be both of equal importance. We do not share the view that a successful

medical superintendent may not also be a man of science. As we have said before, we think a good superintendent of a public institution for the insane must be something of a general, and as the success of the commander of an army or a ship depends more upon his ability to thoroughly know his whole work, and get it done by any and all means, than upon his ability to personally perform any detail, so the medical officer of a hospital must, broadly and deeply, know his whole responsibility, be it to science, humanity, the public, the treasury, and then — run each department himself? No! that is not in human power; but knowing exactly what must be accomplished, he must also know precisely how to get it done — what part he can best do himself, and how much others can do.

It may almost be said that a good rule for a superintendent would be not to do anything personally which he can do through another — for there is always more than enough that no one but himself can do, and the wise and conscientious choice of his own personal part of the work is one of his greatest obligations.

We are proceeding on the assumption, which we take as an axiom, that every institution for the insane should have one responsible head, and that only a medical man can fully meet the requirements of the position.

We fully realize that practical business qualifications have been the predominant requisite in the past, and they are always indispensable; but we have seen executive ability in our medical superintendents combined with first-rate scientific attainments in the past, and we may reasonably expect such combinations increasingly in the future, especially as we have but just begun to emerge from the pioneer stage of development in building and equipping institutions, and the possibilities of the future must, of necessity, be more ample than were those of the past.

Our departed brothers, and we of to-day, have broken the way and prepared the approaches to a higher plane. We do not boast of attainment. Perhaps we have not reached the loftiest heights, but our eyes have always been fixed upon them, and beautiful they are, glistening in the dawn of a fuller day. "Rocky" has been the road over which we have had to travel. There was much of leveling and filling to be done, and the occasional explosion of a "blast" has been necessary. The road will be smoother by and by. The difficulties will not all be removed, but they will be of a different character.



**APPOINTMENT OF CONSULTANTS TO INSANE HOSPITALS IN PENNSYLVANIA AND KENTUCKY.**—The *Pittsburg Medical Review*, as quoted by the Cincinnati *Lancet-Clinic*, announces the following action of the trustees of the new institution at Wernersville, Pa.:

**CONSULTING STAFF OF WERNERSVILLE ASYLUM.**—The following staff has been elected by the trustees of the new asylum for the chronic insane at Wernersville:

*Physicians.*—Dr. Wm. Pepper, Philadelphia; Dr. Wm. W. Guildford, Lebanon; Dr. W. F. Muhlenberg, Reading.

*Surgeons.*—Dr. DeForest Willard and Dr. Wm. W. Keen, Philadelphia; Dr. W. Murray Weidman, Reading.

*Gynecologist.*—Dr. Anna E. Broomall, Philadelphia.

*Ophthalmologist.*—Dr. Charles A. Oliver, Philadelphia.

*Neurologists.*—Dr. Wharton Sinkler, Dr. James Hendrie Lloyd, and Dr. Francis X. Dercum, Philadelphia.

The *Lancet-Clinic* further mentions an appointment in Kentucky as follows:

It affords us pleasure to observe in this connection the appointment of Dr. L. S. McMurtry as gynecologist to the Kentucky State Asylum for the Insane. This is an upward and forward step in the right direction, and is a beginning of an adoption of the visiting staff system in Kentucky institutions.

The opening of the hospital at Kankakee, Ill., to classes of students is also mentioned in the same connection, and the editorial has some appreciative remarks upon progress in insane hospital management. We heartily approve the spirit manifested, while we can not wholly indorse what is said about consulting staffs for these institutions. There are practical difficulties in securing such a staff, and also securing systematic performance of the duties by its members. We think these difficulties can and should be removed, and propose to present a discussion of them in our next issue.

**THE ENGLISH LAW RELATING TO THE DEFENSE OF INSANITY IN CRIMINAL CASES.**—At the session of the British Medical Association, in July and August last, there was an interesting discussion in the psychological section on the English law in regard to the plea of insanity as a defense for crime. It was participated in by Doctors Weatherly, Mercier, and Tuke, Sir Frederic Bateman, Mr. Ernest Hart, and others, and at its conclusion the following resolution, proposed by Doctor Weatherly and seconded by Doctor Mercier, was passed unanimously:

That in the opinion of this meeting the present law relating to the defense of insanity in criminal cases, as laid down by the judges in 1843, is not in accord with modern mental science and should be reconsidered.



Subsequently the following resolution, moved by Doctor Mercier and seconded by Doctor Weatherly, was passed unanimously, after some observations from Mr. Pitt Lewis, Q. C., and Dr. Batty Tuke:

That a committee be nominated to confer with the Parliamentary Bills Committee of this association and with the committee appointed by the Medico-Psychological Association, to consider the best method of obtaining the earliest possible action of the House of Lords, or any other means as they may deem advisable.

Whereupon the following resolution, proposed by Doctor Mercier and seconded by Doctor Douglas, was adopted unanimously:

That the following be appointed a sub-committee in accordance with the foregoing resolution: Doctor Orange, C. B.; Doctor Nicholson, Dr. Connolly Norman, Dr. G. F. Blanford, Dr. G. H. Savage, Mr. Ernest Hart, Dr. L. A. Weatherly, Dr. C. A. Mercier.

The answers of the judges in 1843, though intended to form the British law on this subject, have not been altogether accepted as such by subsequent authorities, and their legal validity has been seriously questioned by Sir Fitz James Stevens and others. It would be well, nevertheless, could they be supplanted by some valid statement of the law more in accord with medical science. Whether this can be done by act of Parliament seems to be doubted by some who took part in the discussion, notably Mr. Pitt Lewis, who said the reform would have to come through the Court for Crown Cases, Reserved, which is, we take it, the court of last resort in matters of this kind. However it may be, it is to be hoped the reform will come.

**ASSOCIATION OF SOUTHERN HOSPITALS FOR INSANE.**—We have received an announcement of the formation of an association with the above name, which is to hold its first meeting at Birmingham, Ala., on November 20, 1894.

The executive committee consists of: President, J. T. Searcy, superintendent Bryce Hospital, Tuscaloosa, Ala.; vice-president, Chas. D. Hill, superintendent Mount Hope Retreat, Baltimore, Md.; secretary, J. M. Babcock, superintendent asylum, Columbia, S. C.; T. O. Powell, superintendent asylum, Milledgeville, Ga., and P. L. Murphy, superintendent hospital, Morganton, N. C.

We wish our Southern confrères abundant profit and pleasure in their new organization, and can well believe that benefit to themselves, their patients, and to the cause of the insane in general, may come from their deliberations.

**PROJECT OF A LAW REGULATING EXPERT TESTIMONY.**—At the meeting of the Illinois State Medical Society at Decatur, this year, Dr. Daniel R. Brower, chairman of a joint committee of six medical societies of Chicago, which had had the subject of medical expert testimony under consideration, presented the following proposal for a law, which it was moved and carried should be urged for passage at the coming session of the Legislature:

*Be it enacted by the people of the State of Illinois in the General Assembly represented:* That the judges of the Circuit and Superior courts of the State of Illinois be, and the same are hereby, authorized to appoint, in the month of January each year, persons who shall act as expert witnesses in the medical and other sciences in giving opinion upon the evidence, as presented in a hypothetical form, of criminal causes that may be on hearing in the courts presided over by the said judges. Such expert witnesses shall hold their said appointments for one year or until their successors are appointed and qualified. They shall be entered as expert witnesses upon a list of such witnesses kept by the circuit clerk, and the said clerk shall issue a certificate of appointment as such expert witness to the person appointed as above.

Such expert witnesses shall be citizens of the State of Illinois and shall be known in the communities where they reside for their professional competency and personal probity, and, if physicians, they shall have been at least five years in regular and active practice. When expert opinion is desired in any cause pending in a criminal court, the trial judge presiding in such cause may, at his discretion, summon for duty under this act, such expert witnesses to the number of three. Such expert witnesses shall be paid for their services by the county in which the trial for which they are summoned is held, in such sums as may be named by the judge.

It shall be the duty of such expert witnesses to give an opinion on the evidence as presented in hypothetical form in the case in which they are called. Such experts shall be subject to cross-examination by both prosecution and defense; but such cross-examinations shall be limited entirely to the subjects embraced in their opinion.

In criminal cases previous to trial, if the State's attorney deems it advisable to have expert opinion he shall so state to the court having jurisdiction of the cause, and the judge receiving such statement may summon expert witnesses to serve under this act.

**CARE OF EPILEPTICS AND INSANE IN MINNESOTA.**—The board of physicians appointed by the Governor of Minnesota to investigate the insane hospitals and report on the needs of the insane, have suggested in their report the establishment of an institution for the care of epileptics, and another State insane hospital, the latter to be in the vicinity of St. Paul and Minneapolis.

## CORRESPONDENCE.

MARYLAND HOSPITAL FOR THE INSANE, SPRING GROVE,  
CATONSVILLE, BALTIMORE Co., Sept. 25, 1894.

*To the Editor of the AMERICAN JOURNAL OF INSANITY:*

DEAR SIR: At the meeting of the American Medical Association, held in Washington in 1884, Medical Director Albert L. Gihon of the United States Navy offered a resolution for the appointment of a committee to collect funds for the erection of a suitable memorial at the Capital to Dr. Benjamin Rush. The resolution was unanimously adopted and a committee appointed with Doctor Gihon as chairman. The committee was subsequently enlarged by the appointment of representatives from each State and Territory, and of the Government services.

An organization was effected and collections begun. The fund has grown by slow accretions until there are now \$3,000 safely invested.

At the recent meeting of the British Meico-Psychological Association in Dublin, I drew the attention of Dr. D. Hack Tuke to the existence of this fund and its object. Doctor Tuke expressed a lively interest in the proposed memorial and promised a contribution on the following day. Unfortunately opportunity did not offer to meet him again before leaving Dublin, but I have recently received the following letter upon the subject which, I am sure, will interest American alienists:

63 WELBECK ST., CAVENDISH SQUARE, W., LONDON, Aug. 24, 1894.

*Dear Doctor Rohé:*

I was so sorry to miss you at the Dublin meeting the next day after our talk about the Rush memorial. I looked for you, guinea in hand, only to find from Doctor Curwen that you had flown.

I am glad to be permitted to contribute my mite to the memorial in honor of one I have always greatly admired. It must be confessed that the medical profession of your country has been tardy in publicly recognizing the claims of their most celebrated physician. I have paid my humble tribute to his memory in "The Insane in the United States and Canada," and can only regret that I have not sufficient command of language to describe adequately his originality, his talent, and above all his devotion to the best interests of our race, including the insane. In the union of medical skill with active benevolence, I think, as I have said in my book, he was the prototype of Fothergill rather than of Sydenham.

With a pleasant remembrance of our meeting in Ireland,

I remain, yours very truly,

D. HACK TUKE.

The readers of the *AMERICAN JOURNAL OF INSANITY* know how profound is the obligation of psychiatry to Doctor Rush. It should need no appeal to them to contribute to this memorial. I therefore simply ask space for the above note in your next issue, trusting that all those who read the tribute of the most distinguished alienist of Great Britain to the most celebrated physician America has produced will follow his example.

Of course we do not insist upon the guinea. Subscriptions may be for any amount and will be promptly acknowledged.

Contributions may be sent direct to Medical Director Albert L. Gihon, United States Navy, Naval Hospital, Washington, D. C., or to the undersigned.

Very truly yours,

GEORGE H. ROHÉ,

*Secretary Rush Monument Committee.*

## OBITUARY.

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### JUDSON BOARDMAN ANDREWS, A. M., M. D.

Rarely has the news of the death of one of our brethren come with so great a shock or occasioned such widespread sorrow in our ranks as that of the departure from this life of our dear friend Andrews. His splendid physique and stout heart, as recalled by all who knew and loved him in health — and who did not? — bespoke for him much more than man's allotted span of years. He was missed from the meeting of our association last summer, when the current report had it that he was suffering from an obstinate form of dyspepsia, for which change of air and relief from duty had been prescribed with the hope and expectation that he would be restored in due course to his wonted physical vigor. But alas! disease was stealthily gnawing at his vitals, sapping the strength of his sturdy frame, and gradually tightening its grasp upon a brave patient, who bore the discomfort and pain of his malady with singular and characteristic cheerfulness and fortitude. Final relief came in the evening of Friday, August 3, 1894.

Judson Boardman Andrews was born in North Haven, Conn., April 25, 1834. He was descended on his father's side from William Andrews, an early settler of New Haven, who sailed from Hampsworth, England, in 1635, and on his mother's side from a brother of Elihu Yale, the founder of Yale College. His preparatory education was received at the Hopkins Grammar School of New Haven, from which he entered Yale College in the class of 1855 and was graduated in course. The degree of Master of Arts was conferred in 1858. After graduation he taught school until he began the study of medicine in the Jefferson Medical College in Philadelphia, in 1857. At the close of the lecture course he resumed teaching in Saratoga County, N. Y., and was engaged in this profession at the opening of the war.

In the spring of 1861 he joined the Stillwater Company of Zouaves, which had been organized and drilled by Colonel Ellsworth. The death of this famous commander, whose family resided in Mechanicsville, where Doctor Andrews was then teaching, aroused his patriotic ardor and proved the turning point in his future course. He enlisted in the Seventy-seventh New York

Volunteers, the Bemis Heights Regiment, which was recruited in Saratoga County, and was elected captain of Company F. The regiment was assigned to Franklin's Corps of the Army of the Potomac, and took part in the Peninsular campaign against Richmond, participating in the siege of Yorktown, the battles of Williamsburg, Mechanicsville, Savage Station, White Oak Swamp, and Malvern Hill. After the retreat to Harrison's Landing in July, 1862, the young soldier resigned his commission on account of ill health, and returned to New Haven, where he completed his medical studies and received the degree of M. D. from the Yale Medical School in February, 1863.

To fit himself for service in the army he entered the German-town Hospital as medical cadet, and in July, having passed the State examination, was commissioned assistant surgeon and assigned to the Nineteenth Connecticut Volunteers, which was on duty in the fortifications about Alexandria, Va. The regiment was subsequently changed from infantry to heavy artillery, and was designated the 2d C. V. A. When Grant assumed command, this, with other artillery regiments, was ordered to the field and assigned to the Sixth Army Corps, with which it served during the war. It took part in the battle of Cold Harbor, in which it lost 129 men, killed and mortally wounded. This gives it the first place among the regiments of the Union army in members killed in any single engagement, while its losses in killed during the war, 254, makes its record a notable one.

In July, 1864, the Sixth Corps, to which it belonged, was sent from the front of Petersburg to the defense of Washington, and was afterward assigned to duty in the Shenandoah Valley under Sheridan. In this campaign it was engaged in the battles of Winchester, Fisher's Hill, and Cedar Creek. The following December it was returned to Petersburg to its former position in the Union line, and fought at Hatcher's Run, at the successful assault on the Confederate lines, April, 1865, at Little Sailor's Creek, and was present at the surrender of Lee at Appomattox. The regiment was mustered out of service at New Haven, Conn., in September, 1865. During the whole period of active service Doctor Andrews followed the fortunes of the regiment, doing duty on the field in immediate care of the wounded, and in the hospital of the division. He was detailed as surgeon in charge of a regiment, and at times was the only medical officer present for duty in the field in the brigade. He was one of the first members of the Grand Army of



the Republic in the State of New York, having had the degrees communicated to him by Gen. James B. McKean, who was provisional department commander before any post had been established in the State. At a later date he joined the military order of the Loyal Legion.

In 1867 Doctor Andrews was appointed third assistant physician in the New York State Lunatic Asylum at Utica, then under the charge of Dr. John P. Gray. He was rapidly promoted until 1871, when he became first assistant, and he continued in this position until 1880, when on the opening of the Buffalo State Hospital he was appointed superintendent of that institution, a position which he has since held. During his residence in Utica Doctor Andrews won the respect and esteem of all in the institution by his ability and his thoroughness. He was an indefatigable worker, and as assistant physician carried out faithfully and to the letter all the orders of his superiors. He discharged his duties with military promptness and precision, and when acting as first assistant exacted from all the same faithful service which he had rendered. The same attribute characterized him in his administration of affairs at Buffalo. All those in his employ knew the kind of service he expected, and that he would be satisfied with nothing else. They found him always the same — pleasant, genial, and companionable, not subject to variable moods or caprice, but always devoted to duty. Those who meant to do their duty found him as helpful and kindly as an elder brother. Those who meant to do less, he would not tolerate about him.

On becoming a resident of Buffalo Doctor Andrews was made lecturer on insanity in the Buffalo Medical College. Soon afterward he was elected professor of psychological medicine, and held that position until 1893. In 1886 he was elected president of the Erie County Medical Society. On coming to Utica he was made a member of the Oneida County Medical Society, and in 1874 he was elected a permanent member of the New York State Medical Society. He was one of the founders and one of the most prominent members of the New York State Medical Association, and was president of that organization in 1892. He was president of the section of Psychological Medicine and Nervous Disease of the Ninth International Congress, held in Washington in 1887, and in 1892 was elected the first president of the American Medico-Psychological Association, formerly the Association of Medical Superintendents of American Institutions for the Insane. During

his professional career he was a frequent contributor of papers to medical societies and journals. While in the Utica Hospital he was for some ten years the working editor of the *AMERICAN JOURNAL OF INSANITY* and wrote extensively for its columns. His articles on "Phosphoric Acid," and "Chloral" were frequently quoted by medical journals and often referred to by authors of works on materia medica and practice at home and abroad.

Doctor Andrews had always been an advocate of State care for the insane, and aided materially in establishing the system. In the Buffalo hospital he inaugurated and carried to a successful issue the training of attendants as nurses upon the insane. As one of the pioneers of this important movement the Buffalo school furnished an impetus to, and served to popularize, the systematic training of nurses for the insane in the United States. Doctor Andrews was an able, active, and energetic worker in his chosen field of labor, the success of his career as a practical alienist being fully attested by the history of the Buffalo State Hospital, as well as by his enviable record at the parent institution at Utica.

Doctor Andrews was an active Mason, having been made a member of Faxon Lodge No. 697, of Utica, which lodge he had also served as master. At the laying of the corner-stone of the Masonic Home in Utica he marched with the lodge of which he was a member. He had received honorary membership in the thirty-third degree of Scottish Rite Masonry.

Doctor Andrews married Agnes, daughter of Hon. Samuel Campbell of New York Mills, who survives, with one child.

Such is the partial record of our deceased friend's fruitful life as made up in the main from data gathered for this journal's sketch to accompany the portrait which it published at the time of his election as president of the American Medico-Psychological Association.

Where shall one look for threescore years of greater usefulness — for a stewardship more faithfully discharged? Of whom could we assert more truthfully that duty was his watchword, or that a broader love of his fellowmen animated and permeated his life-work? But one enemy he had, and that one himself, and if self-serfdom be a sin, that one only are we disposed to lay at his door, for had he but studied his own welfare as he was wont to consider that of others, his useful life might possibly have been spared to his family and the public service for several years.

Sadly we shall miss him. His presence everywhere and any-

where was a tonic and an antidote to mental depression. Conspicuous among his characteristics were his common-sense, his bluff geniality, his open candor, and his almost childlike ingenuousness. He was beloved by old and young alike, and all who came within the sound of that cheery voice, or felt the hearty grasp of that good right hand, must deeply mourn that "the voice is still," and sadly, as vainly, wish for the touch of the "vanished hand." How pleasant, too, the memory of the genial, mirthful smile and kindly twinkle of the eye that betokened the sunshine of a generous soul to all who came within their warmth!

In the death of Doctor Andrews the country loses a loyal son, the State a faithful public servant, Buffalo an exemplary citizen, his family a devoted husband and father, while to American psychiatry the loss is one that must be keenly felt by all his surviving brethren. May peace attend him!

G. A. B.

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GEORGE CULVER PALMER, M. D.

George Culver Palmer, M. D., was born in Stonington, Conn., December 27, 1839. His ancestors were farmers and he inherited from them the mental and physical vigor of the sturdy Puritan stock.

His early education was obtained in the common country schools. He fitted for college at the Connecticut Literary Institute at Suffield, on the Connecticut River, and entered the University of Michigan in October, 1860. At the close of his first year of study, in consequence of straitened circumstances, he relinquished his plan to take a collegiate course, and began the study of medicine, graduating from the medical department of the same institution in March, 1864. He had previously served as a part of his preparation for the practice of medicine as a medical cadet in the United States Army hospitals in Kentucky. Immediately upon his graduation he received an appointment as assistant physician at the Michigan Asylum for the Insane at Kalamazoo, under the superintendency of Dr. E. H. Van Deusen. In 1872 he was made assistant medical Superintendent, and in 1878, upon the retirement of Doctor Van Deusen, he became medical superintendent, a position which he filled until 1891, when he resigned to become medical director of Oak Grove, a handsome private institution built in accordance with his plans at Flint, Mich. His term of service at Kalamazoo, through

all grades of promotion, covered a period of twenty-seven years — practically the whole period of his active professional life. He came to the service of the State young and vigorous, and retired broken down in health. During his residence he saw an institution grow from a population of 175 to nearly 1,200 persons, and from a few wards to two large departments with cottages, colonies, and outlying buildings. This growth and development was largely the result of his far-seeing plans and good management, but the labor incident to it taxed his energies to the utmost. With the hope of securing a partial respite from his former onerous responsibilities and at the same time from a keen desire to organize a better institution for the care of private insane, he undertook the work at Flint. From his broad sympathies with all classes of patients and intuitive knowledge of their necessities he was eminently well fitted to undertake this work which was confidently expected to mark a new era in the care of patients of the better class of Michigan. The state of his health, however, prevented him from fully realizing his ideals, and the work so well initiated must be carried on by other hands.

His failure in health dated from an attack of pleurisy in the winter of 1888, from the effects of which he recovered very slowly. In the following year he had influenza, with distressing cardiac and nervous complications, and never afterward regained his former physical vigor. He continued to perform his usual duties with his accustomed regularity and fidelity, but it was apparent to his friends that he had lost vigor and buoyancy. In April last, without previous warning, he had a sudden and severe attack of dyspnoea, accompanied by an alarming degree of physical and nervous prostration, from which he never rallied. Symptoms of incurable myocardial disease, hitherto unsuspected, developed and ran a comparatively rapid course. His sufferings were very severe at times, but he endured them with his accustomed equanimity and patience. His death occurred somewhat unexpectedly upon the 17th of August, after several hours of unconsciousness.

In person Doctor Palmer was tall and commanding and of full habit. Although unassuming and modest to a fault his manners were charming and well calculated to win the confidence and respect of all who came in contact with him. He scrupulously avoided any course of conduct which tended to bring himself into prominence, and was always contented to let his work and deeds sound his praises. He identified himself wholly with the interests

of his patients and the welfare of his institution, and thought nothing of any sacrifice of money, time or personal comfort which promised to benefit either. In all things he put the comfort of others before his own enjoyment.

He was singularly amiable and thoughtful of the wishes and preferences of others, and many persons who saw only this side of his character misjudged his firmness of purpose, his tenacity of principle, and his strength of conviction. Although he reached conclusions slowly and only after patient thought upon every side of a difficult subject, when his mind was once made up he was immovable. The tenacity with which he held any view, however, did not degenerate into obstinacy. A good example of his truth to his convictions is afforded by his position upon the subject of mechanical restraint. Although he had used restraint and defended the practice for many years, when he became convinced that non-restraint furnished a better way of caring for patients he immediately adopted it, and in manly fashion spoke of his former erroneous views in one of his annual reports. He was preëminently happy in devising ways and means for the better care of patients.

He possessed great fertility of resources, quick perceptions, and an intuitive appreciation of the needs of the insane. He was always planning to give his patients better food, more tasteful clothing, better medical care, and more perfect classification.

When he found that the asylum at Kalamazoo must inevitably be largely extended, and that the site then occupied was wholly inadequate, he conceived the plan of extending its accommodations by colonies at varying distances from the original institution.

In this manner he was able to provide a large number of classifications to meet the necessities of different forms of mental disease and afforded homes and occupations for many who no longer required the close custody of the parent institution.

It was most interesting to observe how readily his practical mind dealt with the new problems which arose in this process of asylum evolution.

He was not a ready writer, and from a distrust of his ability avoided writing as much as possible. He once remarked to the writer that some people wrote for fame, but he (referring to the statutory provision respecting his biennial reports) because he *must*. Yet when he wrote he uniformly expressed himself clearly and to the point. His paper on the "Colony System of Caring for the Insane," published in the October number of the *JOURNAL OF INSAN-*

ITY for 1887, and his numerous biennial reports and papers before the joint boards of Michigan, show what he might have done to enrich our literature had not his native modesty prevented.

He had the tender heart of a woman in the frame of a man, and intuitively shrank from giving pain or distress to any human being. The writer, who knew him intimately for more than thirty years, can truthfully say that his was the purest, noblest, kindest, most sacrificing nature he ever knew.

He was married in 1887 to Miss Mary McCarty of Detroit, Mich. Two children were born to their union, who, with Mrs. Palmer, survive him. He was eminently happy in his home life, a tender and affectionate husband, and a loving father. H. M. H.

In connection with Doctor Palmer's death the following memorial of the directors of Oak Grove Sanitarium is here appended :

OAK GROVE,  
FLINT, MICH., August 23, 1894.

The directors are deeply grieved to announce the death, on August 17th, of Dr. George Culver Palmer, late medical director of Oak Grove.

Identified with Oak Grove since its inception, the moving spirit in its growth and development, alive to its interests and deeply imbued with the necessity and importance of its work, his loss is keenly felt by his associates on the board of directors.

Not less heavily does it fall upon those seeking relief from suffering and trouble in the hospital, of which he was the devoted head. Always tender and sympathetic, the embodiment of gentleness and sincerity, he was beloved by patients, who found him a warm friend, a kindly adviser, an accomplished physician. His manner was winning, refined, and unassuming, his intuitions were quick and ready, his judgments clear, his suggestions helpful and encouraging. He was indulgent and charitable, but firm in his convictions of duty and wholly intolerant of even the semblance of wrong. The needs of the patients were his constant care. In his death they have lost a friend, true and warm-hearted, whose best efforts were constantly put forth in their interest. No higher tribute could be paid him than to record their expressions of affection.

Doctor Palmer was born December 27, 1839, in Stonington, Conn. He received his preliminary education at Suffield, Conn., where he prepared for Brown University. Subsequently changing his plans



he entered the literary department of the University of Michigan, and there spent three years. He graduated in medicine in the medical department of the University of Michigan in 1864, and immediately afterward received an appointment in the Michigan Asylum for the Insane, Kalamazoo, then under the superintendency of Dr. E. H. VanDeusen. He served upon the staff of that institution as assistant physician and assistant medical superintendent until March, 1878, when he became medical superintendent. In 1891 he resigned the latter position and was elected medical director of Oak Grove, which, under his wise and beneficent administration, has abundantly fulfilled the high destinies which its promoters had in view.

To Doctor Palmer is due the merit of originating and developing the colony system of management of the insane, and to his writings and his personal work the successful establishment of State care in Michigan is in a great measure attributable. He was the uncompromising foe of the county system, and for his assistance in the great reforms wrought in the treatment of the mentally diseased, suffering humanity may long cherish his memory.

He was self-sacrificing and philanthropic, and beloved by all who knew him well. His life-work was well done.

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#### DR. R. J. PATTERSON.

An unintentional omission, such as sometimes seems unavoidable, has occurred in the failure until now to chronicle in the *JOURNAL* the life and services of Dr. R. J. Patterson of Bellevue Place, Batavia, Ill.

Doctor Patterson was seventy-six years old at the time of his death, and belonged to the pioneers of alienism in the United States, yet so well did he carry his years, until finally broken by physical infirmities, that few would have supposed he had entered as early as 1842 upon the practice of medicine, and in 1850 had already been for some time the medical superintendent of a State institution for the insane. He was successively in the service of Ohio, Indiana, and Iowa, in charge of important State charities. In 1867 he came to Batavia, Ill., and founded the private hospital with which he was identified until his death, and which he made an attractive and beneficent home for the sufferers from mental maladies.

Doctor Patterson was of the sixth generation of New England

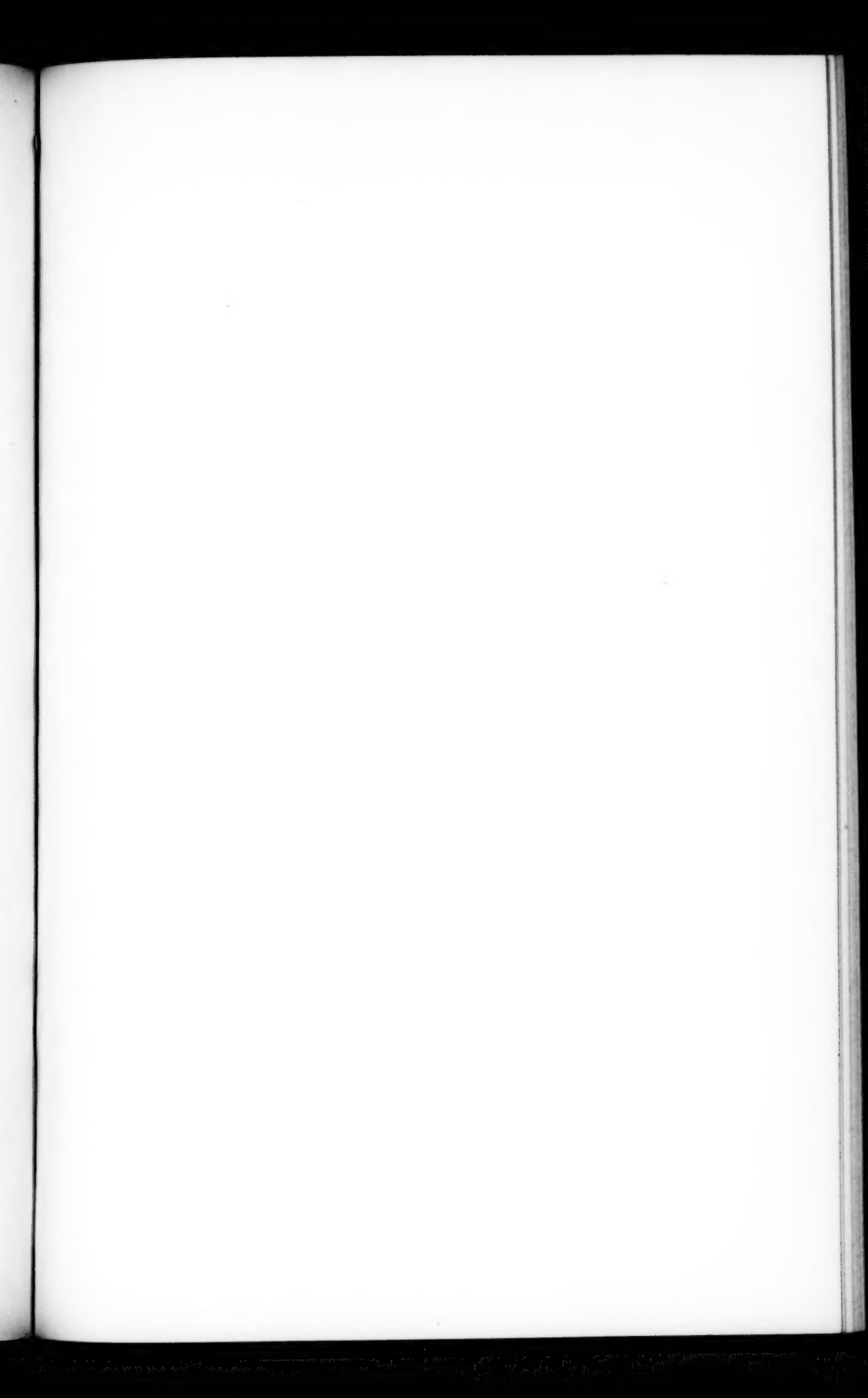
Pattersons. He was born in Berkshire County, Massachusetts, in the year 1817. He graduated from the Berkshire Medical College in 1842, and soon after received an appointment on the medical staff of the Ohio Lunatic Asylum, at Columbus, Ohio, where he remained for five years. He then became medical superintendent of the Indiana Hospital for Insane. After serving here five years, he went again to Columbus and took charge of the State Idiot Asylum. From thence he went to Mount Pleasant, Iowa, where he remained in charge of the State Hospital for Insane for five years. In 1867 he founded a private hospital for the insane at Batavia, Ill., where he remained until his death, April 27, 1893. He was also Professor of Medical Jurisprudence in the Chicago Medical College for seven years. He was an honored member of the association of Medical Superintendents of American Institutions for the Insane, and of various other medical societies.

Doctor Patterson was a man of great geniality and kindliness, of fine personal presence, and eminently fitted by nature for his chosen work. Those who knew him best and longest appreciated most his many sterling qualities and endearing traits of character. He was eminently successful in his efforts for the welfare of those committed to his care, and the homelike and healthful establishment at Batavia remains a monument of his skill and ability in his noble life-work. His memory will ever be warmly cherished by his hosts of surviving friends, and by those whom he helped to new health and happiness. It was to Bellevue Place that the widow of President Lincoln was for a time committed, and Dr. D. Tilden Brown found with Doctor Patterson a home where he largely regained his mental health, after seeking it for years at home and abroad.

Doctor Patterson did not live to see the change in the Illinois commitment law, whereby the hard and cruel exaction of a jury inquest for each and every unhappy victim of insanity was removed, although he had labored long and faithfully for this wise change.

All honor to our departed associate for the services of his long and useful life!

R. D.





Faithfully Yrs.  
Edward Cowles